

Hyundai Plasma Display

HQP421SR/421HR/501HR
User's Guide

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* The above image may look different from the real product.

FCC Information

User Instructions

The Federal Communications Commission Radio Frequency Interference Statement includes the following warning :

NOTE : This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television receptions, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures :

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for assistance.

User Information

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Connecting of peripherals requires the use of grounded shielded signal cables.

DECLARATION OF CONFORMITY

WE HYUNDAI ImageQuest CO., LTD.
 Ami-ri Bubal-Eub Ichon-Si Kyungki-Do
 467-860 KOREA

declare under our sole responsibility that the product:

Kind of equipment : PDP TV

Type-Designation : PT42AS000 / PT42AH000 / HQP50AH000

to which this declaration relates is in conformity with the
following standard(s) or other normative document(s)

Safety : EN60065 : 1998 / IEC60065 : 1998
EMC : EN 55013 / 1990+A12 : 1994+A13 : 1996+A14 : 1999
 EN 55022 : 1998+A1 : 2000 Class B
 EN 55024 : 1998+A1 : 2001
 EN 55020 : 1994+A11 : 1996+A13 : 1996+A14 : 1999+A12 : 1999
 EN 61000-3-2 : 2000, EN 61000-3-3 : 1995+A1 : 2001

following the provisions of the Low Voltage Directive 73/23/EEC,
93/68/EEC and the EMC Directive 89/336/EEC.

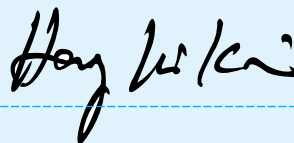
Accredited testlaboratory:
TÜV Rheinland
Am Grauen Stein
51105 Köln

KOREA /MAY. 15, 2004

Place and date of issue)

HONG KI, KIM

(Name and signature of
authorized person)



Important Tips

Image Retention effect(Image Sticking) —

1. Cause :

- Image Retention Effect could be come from displaying a still picture in certain period of time with at a certain area continuously, as the feature of Plasma Display Panel.
- This is the same matters to other companies' PDP products, too.

2. Prevention :

- To avoid this matter, use the product after reducing brightness and contrast, especially a still image is displaying for a long time. (Example : Contrast 50, Brightness 50 - *See the page 36*)
Once Image retention occurs, change the mode into Video mode which displays more motion pictures. It will help reduce this matter, but cannot completely eliminate once it occurs.
It makes the screen's brightness worse as displaying a fixed pattern often.
- Use the fuction, Pixel Shift in still image, in our PDP products.
(For more details, see the below page 73)

3. Solution :

- The temporary image sticking would decrease with displaying Full-White pattern after 10 hours.
- The permanent image sticking couldn't take off under the latest technology even though being in its manufacturer.

4. Notice :

- It is very important to notify every buyer/customer this information and All Branches/Buyers /Customers should be fully aware of this.
- Image Sticking in PDP products couldn't get the support from a manufacturer, and does not come under the warranty.

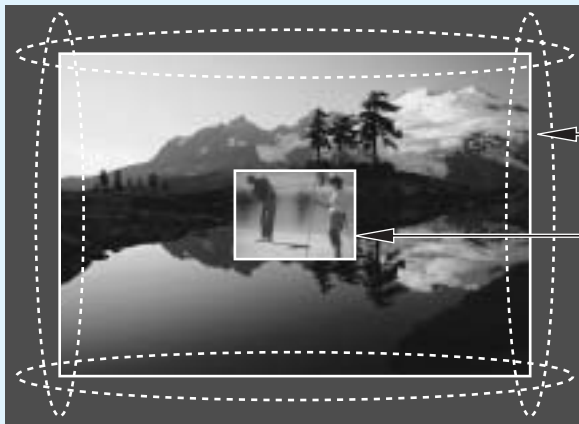
Second Tip —

• Pixel Defect :

Plasma Display Panel(PDP) is made of a group of refined pixels (cells). The Panel, in which 99.9% of pixels have approved, is a normal product. Therefore, only a few of abnormal pixels may appear, however, this has no influence upon PDP performance.

Image Sticking Precaution

Still Image/Panorama/Wide/4:3 in motion Image —



- **Precaution :**

- Image Sticking could be come from Still Image and Boundary line for a long time display and Brightness gap in Boundary.
- This Matter(Image Sticking) is same thing under the other PDP's Company.
- Still Image/Letter in watching TV also will be effect to Image sticking.
- *This matter(Image Sticking) is out of warranty.

Features

A Wide Array of Screen Settings

You can choose different screen settings depending on the type of program you are watching or the surrounding conditions (the lighting or the outside weather conditions).

You can switch among Standard, Dynamic, Movie and Mild options or you can configure the screen settings for yourself.

A Wide Array of Sound Settings

You can choose an optimal sound setting for the type of program you are watching.

You can switch among Music, Movie, News and Standard options or you can configure the settings for yourself.

SRS WOW(Surround) Audio Function

You can listen to dynamic and surround sound only with ordinary speakers.

WSS(Wide-Screen-Signaling) Function

This function is designed to detect signal transmission information and automatically convert it to the appropriate signaling for broadcast format.

Watching TV on Scart

You can change channels while watching TV through F-Scart .

Teletext Function

This function is designed to detect broadcasting signals that contain TTX information to display it.

Two Tuner Built-In

You can watch two channels at the same time and changing each channel.

PIP Viewing

You can watch TV or TTX information at the same time while working on PC or watching VCR/DVD movies.

Various of the Aspect Ratio

You can adjust aspect Ratio as you want.

Auto On/Off Function

This fuction allows you to turn On/Off your PDP TV at the preset Time.

If there is no signal during a specific time period, power will be off.

Auto Detection Sound Format

When watching TV in Nicam/A2 Stereo mode, this function automatically detects transmission signaling to display broadcasting status on the OSD.

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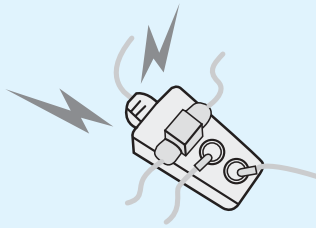


Safety Precaution

The contents of this section are provided for the safety of users and their property. Please read the instructions carefully before using.



WARNING

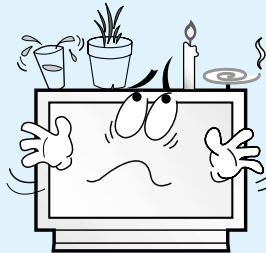


Do not connect multiple electrical appliances to a single outlet.
- It may cause a fire due to overheating from the outlet.

If there is a persistent accumulation of dusts or water on the plug, please make sure to wipe it off using a dry cloth.
- It may cause a fire or an electric shock.

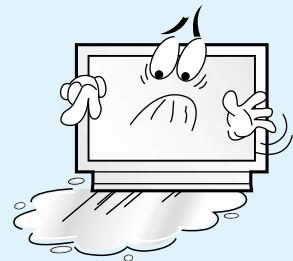


WARNING



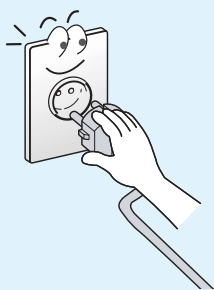
Do not put a water bowl, filled with liquids such as vases, candle, bug repellent smoke, cigarette, plants, or heavy thing on the PDP.
- It may cause electric shock or fire and also heavy things may cause injury when they fall.

Do not install in a place where there is oil, smoke, excessive humidity, or where water may be sprinkled, dripped, splashed on it.
- This may cause electric shock or fire.



Safety instructions are divided into "Warning" and "Alert". Their meanings are as follows.

- ⚠ This icon is intended to alert the user to the presence of potential danger and important operating instructions.
- ⚠ **WARNING** : When there is a possibility of serious injury or death if not observed.
- ⚠ **ALERT** : When there is a possibility of slight injury or product damage if not observed.

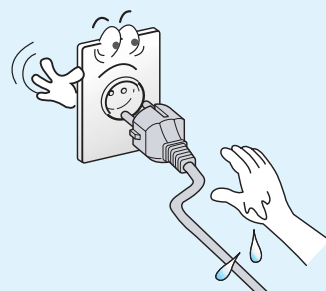
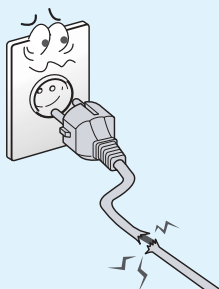


Firmly plug in the power cord so that it does not pull out.

- An unstable connection may cause fire.

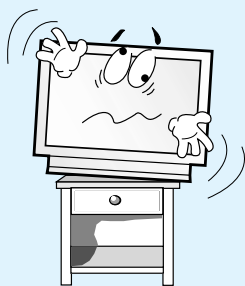
Do not use a damaged power cord or plug, or loose outlet.

- They may cause electric shock or fire.



Never touch the power plug or outlet with wet hands.

- This may cause electric shock.

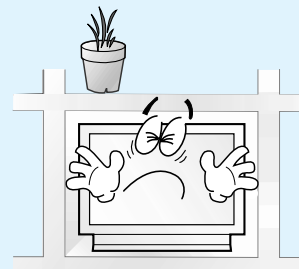
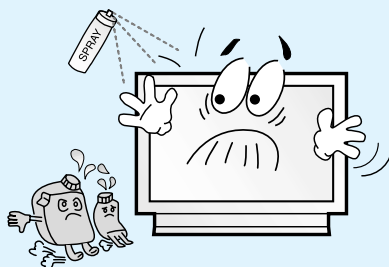


Do not install on an unstable place or small support.

- This may cause the PDP to fall, resulting in serious injury to a child or adult.

Do not use or store a flammable spray or inflammable things near the PDP.

- They may cause explosion or fire.



Do not install the PDP in a bookshelf, closet, or a place where there is poor air circulation.

- Fire may be caused due to the rise of internal temperature.

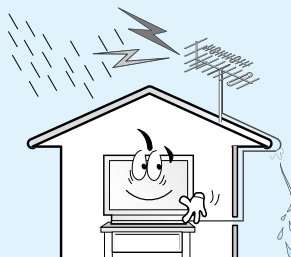


Safety PrecautionContinued from previous page

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WARNING



Make the antenna cable loop at the entrance of the building. Any necessary action such as making the antenna cable loop at the entrance of the building should be taken to prevent rainwater on the outdoor antenna cable from possibly running into the indoor.
- If raindrop gets into the PDP, it may cause a fire or an electric shock.

Never attempt to open, fix, or modify the PDP.

- When there is a need for fixing, call a service center. Fire or electric shock may be caused.



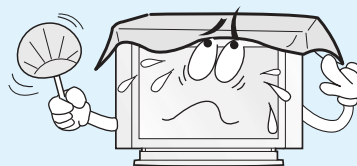
WARNING



Any heat sources such as radiators and heat registers, etc. on or near the PDP.
- It may cause a fire.

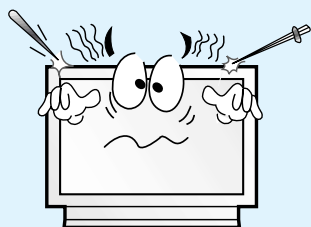
Do not block ventilating slits.

- Blocking the ventilation slits prevents inner heat from escaping, which may lead to a fire.



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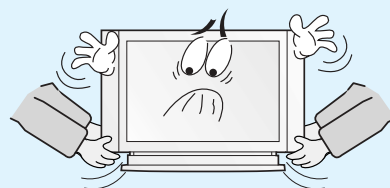
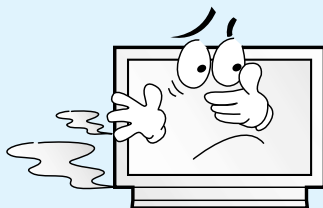


Do not put a metallic object like chopstick, wire, or puncher or inflammables like paper or a match in a vent, headphone jack, or AV jacks of the PDP.

- Electric shock or fire may be caused.

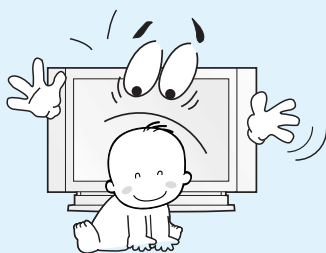
When the PDP produces abnormal noise, burning smell, or smoke, unplug the PDP immediately and call a service center.

- Electric shock or fire may be caused.



When moving the PDP assembled with speakers, make sure to detach the speakers from it.

- If you carry the product holding the speakers, it may cause the product to fall, causing serious injury or damage.

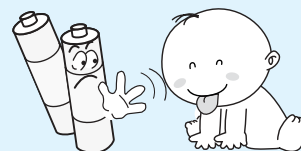
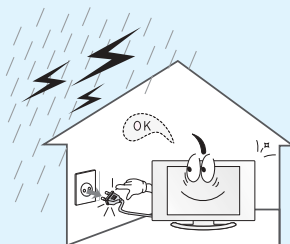


Do not install the product on the floor.

- If it falls over, your child may be injured.

Unplug the product during lightning or thunderstorms and never touch the antenna cable.

- It may cause a fire or an electric shock.



Keep the remote control batteries out of sight and out reach of children.

- If your child swallows a battery, see your doctor immediately.

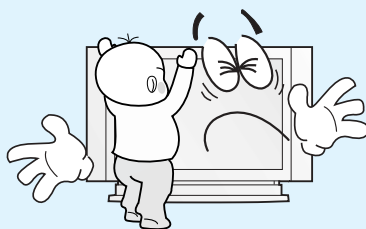


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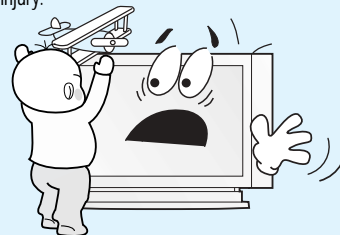
WARNING



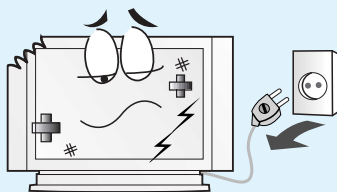
Do not allow children to climb or play on the PDP.
- If it falls over on children, it may cause serious injury.

Do not place toys and cookies, etc. on the PDP, which may attract children's attention. Children will climb on the PDP to reach whatever they have their eyes on.

- If it falls over on children, it may cause serious injury.



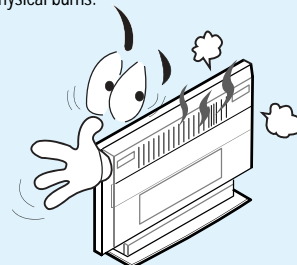
ALERT



In the event of damaging or dropping the product, switch off the power and remove the plug.
- Using a damaged product may cause an electric shock or a fire.
- Contact your local service center.

Please avoid touching the panel at the rear of PDP as it is producing high temperature.

- Direct contact with the hot surface may cause physical burns.



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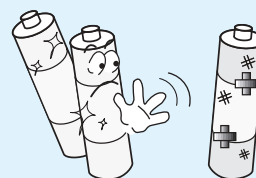


When cleaning the PDP, make sure to disconnect the power plug and use a dry, soft cloth for a cleanup.

- Please avoid using chemicals such as wax, benzene, alcohol, thinner, mosquito spray, air freshener, lubricant or synthetic detergent.

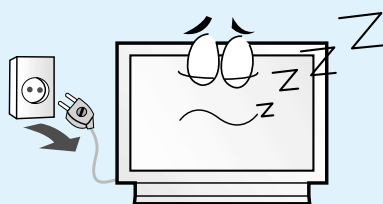
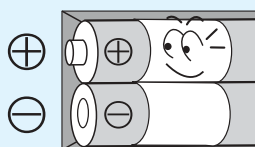
When replacing batteries, make sure to match the batteries to the (+) and (-) marks in the battery compartment.

- Mismatching of polarities may result in internal damage to batteries, fire due to leakage or contamination.



Always use the standard batteries and avoid using old batteries together with new ones.

- Otherwise it may result in internal damage to batteries, fire due to leakage or contamination.

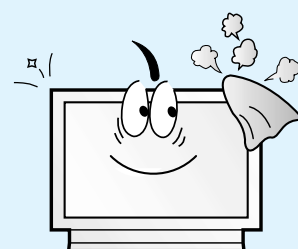
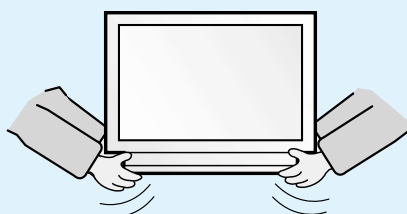


Unplug when you do not use your PDP for a long time.

- If dust is stacked on the PDP, electric shock or fire may be caused from heat, fire, or deterioration of insulation.

When moving the PDP, 2 or more people are advised to carry it.

- Injury or damage may be caused when the PDP falls.



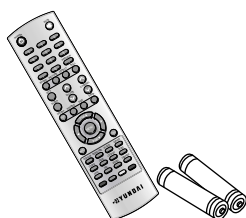
Consult a service center or customer service for inside cleaning about once a year.

- When dust is piled inside the PDP for long time, fire or malfunction may be caused.

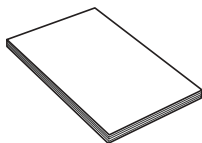


Contents of the Package

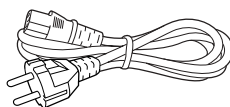
To purchase additional parts, consult a distributor or selling agent.



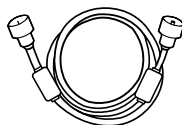
Remote Control/2 Batteries
(1.5V AAA)



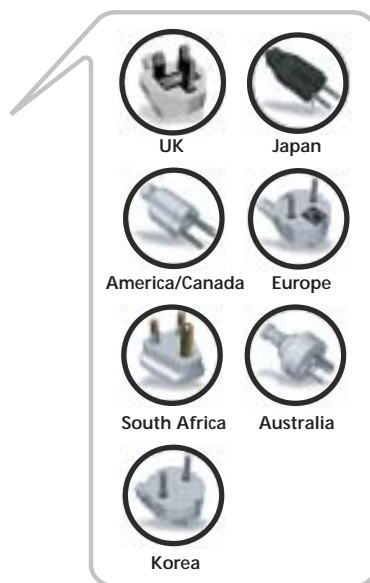
User's Guide



Power Cord

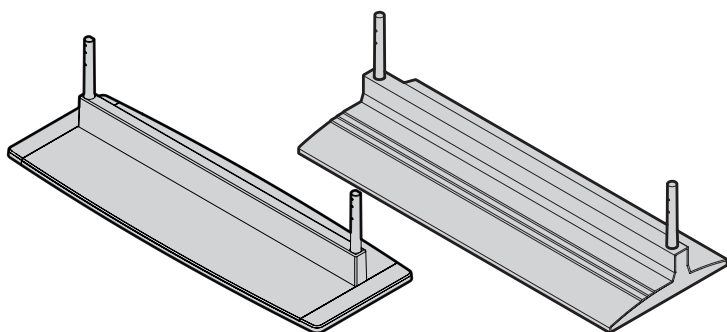


Antenna Cable



Separately Sold Products

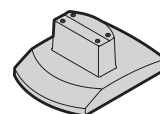
If you want to purchase separately sold products, consult a service center, electronics shops, or parts seller.



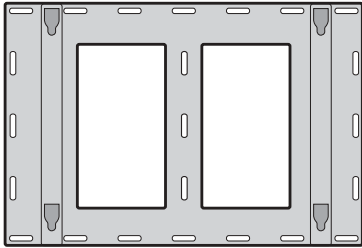
Desk type stand



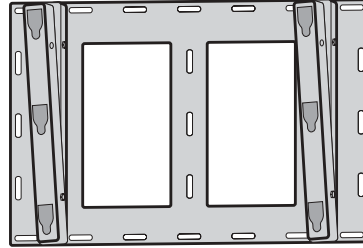
Desk type speaker



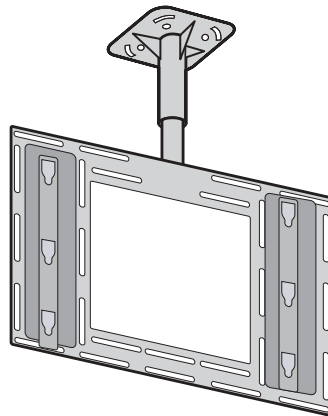
Desk type speaker
stand



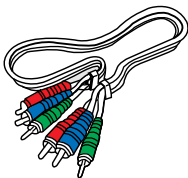
Wall mounting frame



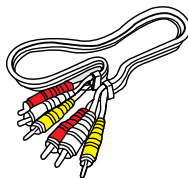
Adjustable wall mounting frame



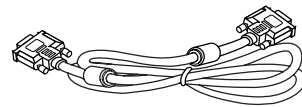
Ceiling mounting frame



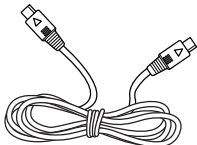
Component(Y, Pb, Pr) cable



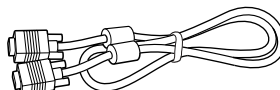
Composite(Video & Audio) cable



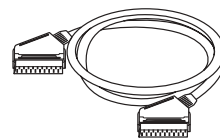
DVI PC video(digital) cable



S-video cable



PC signal cable

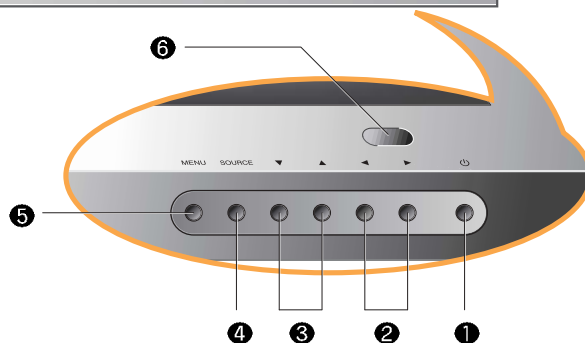
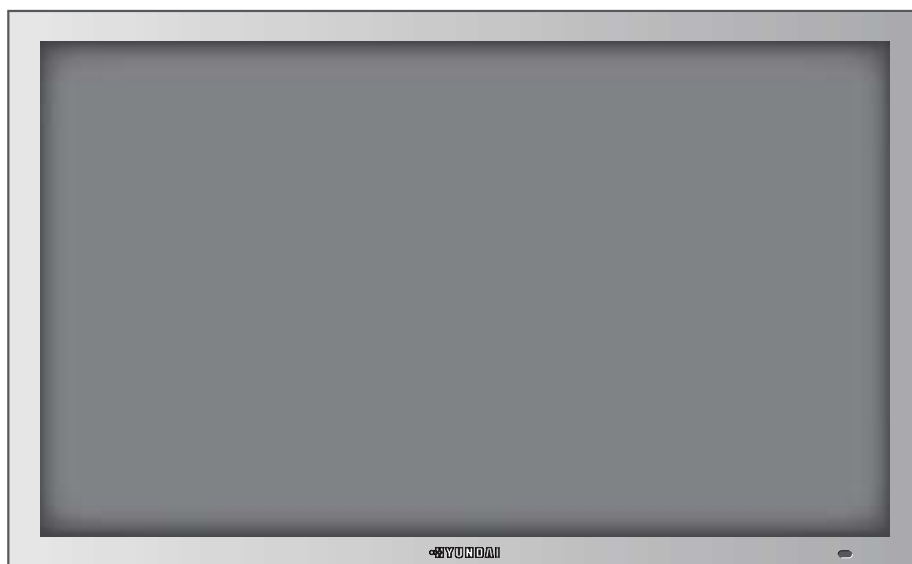


Scart cable



Parts Names and Functions

Front View



* The above image may look different from the real product.

1 Power button

Use this button to turn on or off the PDP.

2 Volume buttons

Use these buttons for your desired sound level. These buttons also serve as the cursor of Select/Adjust when in Menu mode.

3 Channel buttons

Use these buttons to change channels. These buttons also serve as the cursor of Down and Up buttons when in Menu mode.

4 Source button

Use this button to switch among inputs connected to the PDP.

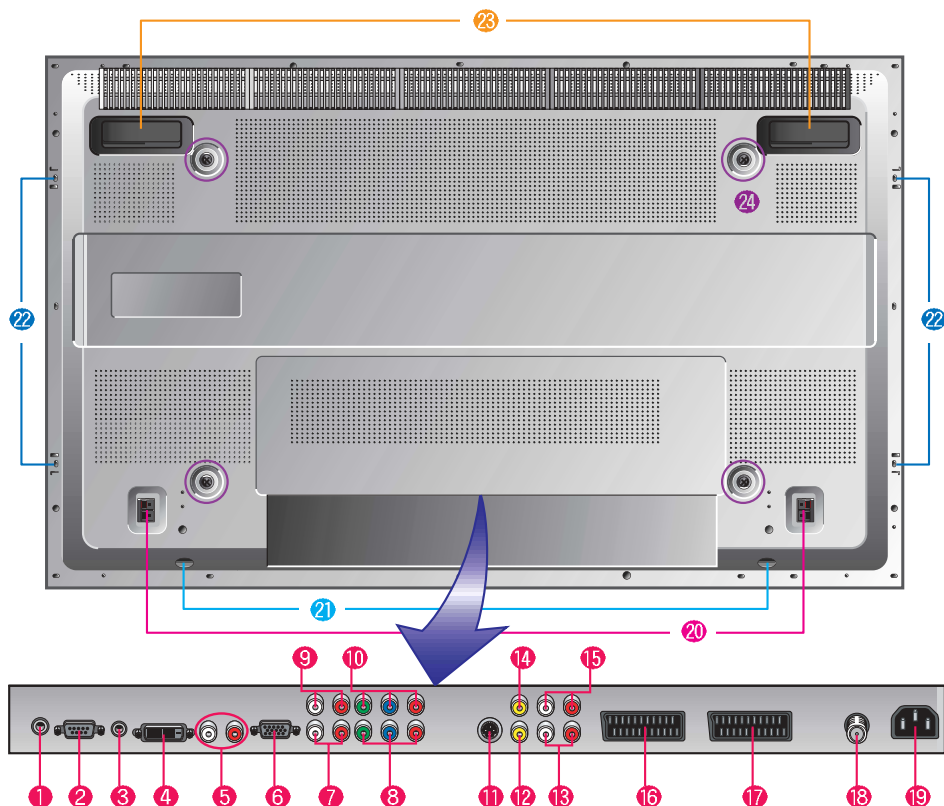
5 Menu button

Use this button to display or exit from menus.

6 Remote sensor and power LED.

Point the remote control toward here. It displays standby or operation status.

Rear View



- ❶ Sub woofer output
If you wish to reproduce the lower bass frequencies, please connect the cable to your Subwoofer speaker with *AMP.
- ❷ RS-232 input terminal
Connect to the RS-232 terminal of a PC for the service check.
*For the control method using this terminal, consult an authorized PDP monitor dealer.
- ❸ Phone Jack
Extend an RS-232 input.
- ❹ DVI input terminal
Connect to the DTV receiver with DVI terminal or to external devices such as a PC.
- ❺ PC/DVI Audio input terminal
Connect to the audio output terminal of a PC.
- ❻ D-SUB input terminal
Connect to the DTV Receiver with D-Sub terminal or to RGB output terminal of a PC.
- ❼ Audio input terminal for DVD
Connect to the audio output terminal of DVD player.
- ❽ Component input terminal for DVD or DTV
Connect to the Component output terminal of DVD player/DTV receiver.
- ❾ Audio input terminal for DTV Component
Connect to the audio output terminal of DTV receiver.
- ❿ Component input terminal for DTV
Connect to the Component output terminal of DTV receiver.
- ⓫ S-video input terminal
Use this for the better video quality than video input terminal.
- ⓬ Video Composite input terminal for VCR
Connect to the Composite Video output terminal of VCR or DVD player.
- ⓭ Audio input terminal for VCR
Connect this when S-video or Composite Video inputs.
- ⓮ Video output
This allows you to view the current program from another external source at the same time.
- ⓯ Audio output
This allows you to hear the sound for the current program.
- ⓰ H SCART input terminal
For Composite Video input and audio inputs used in the European area.
- ⓱ F SCART input terminal
For Composite Video/Audio or R,G,B inputs used in the European area.
- ⓲ ANT. input
This allows you to connect your antenna.
- ⓳ Power input terminal
Power cord is connected here.
- ⓴ Speaker terminal
- ⓵ Stand assembly
- ⓶ Speaker assembly
- ⓷ Carrying handles
- ⓸ Screw hole for fixing on a wall



Remote Control

1 POWER/STANDBY

Use this button to turn the TV set on or off.

2 MUTE

Use this button to turn the sound off completely.

3 NUMERIC KEYS

Use these buttons to select channels.

4 PREVIEW

Use this button to return to the previous channel.

5 ASPECT RATIO

Use this button to quickly change the picture format.

6 STILL

Use this button to freeze a picture.

7 VOLUME

Use this button to control the volume level

8 CHANNEL

Use these buttons to select channels. You can also use these buttons when changing pages in TTX mode.

9 SWAP

Use this button to switch what is being shown on the main picture to the sub-picture.

10 SIZE

Use this button to change the size of a sub-picture.

11 SUB-PICTURE CHANNEL SELECTION

Use these buttons to select or adjust each item of menu. Or you can select channels in sub-pictures.

12 TV/AV buttons

Use this button to display the available video sources. (TV, Video, S-Video, DTV, DVD, PC, DVI, H Scart, F Scart)

13 PC AUTO

Use this button to automatically adjust settings according to the frequency and resolution selection in PC mode.

14 INFORMATION

Use this button to display picture mode, resolution or various program information.

15 WIPER

Use this button to prevent any possible ghosts. White bar will pass through the TV screen to prevent ghosts.

16 EXIT

Use this button to exit from a menu.

17 SELECT/ADJUST

Select or adjust each item of menu.

18 MENU

Use this button to adjust screen, audio, channel, function, time, etc.

19 SOURCE [MULTI SCREEN]

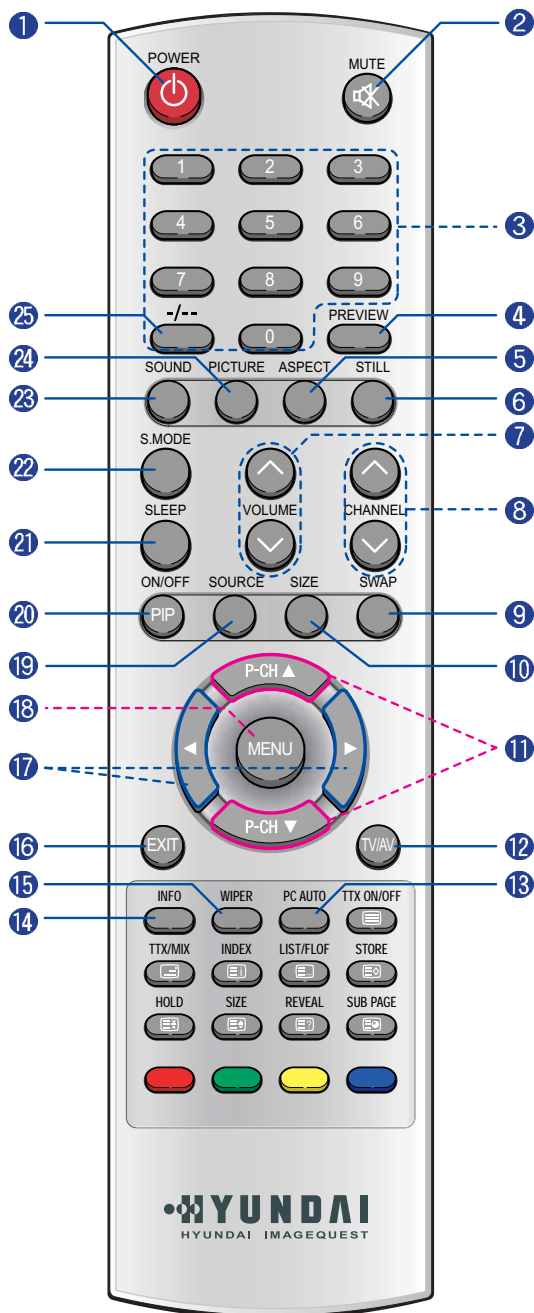
Use this button to select input signals for sub-pictures.

20 PIP (PICTURE IN PICTURE) ON/OFF

Use this button to watch more than one picture at once.

21 SLEEP

Use this button to allow your TV to turn off automatically at designated time.



22 S.MODE

Use this button to display types of audio signals currently aired on TV. Or you can use this button to switch to other Sound Mode available.

23 SOUND

Use this button to select the status of sound.

24 PICTURE

Use this button to select the status of picture.

25 DIGIT KEY

Use this button to select your desired channel using numeric keys.

Teletext & Fastext Function —

① TTX ON/OFF

Use this button to activate the teletext mode.

② LIST/FLOF

To select LIST or FLOF

③ STORE

To store a page(s) in LIST mode.

④ SUB PAGE

To move to Sub Page.

⑤ REVEAL

To reveal the hidden TTX information

⑥ BLUE

To move between BLOCK and BLOCK.

⑦ YELLOW

To move to NEXT GROUP PAGE.

⑧ GREEN

To move to NEXT EXISTING PAGE.

⑨ RED

To return to the previous selection

⑩ SIZE

The size is changed from Normal, Double to Double Bottom mode in order.

⑪ HOLD

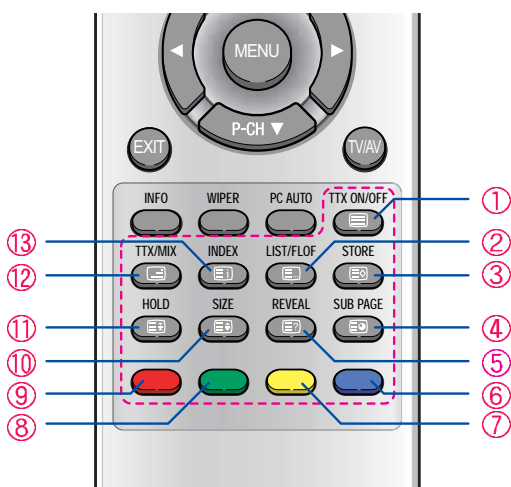
To freeze the TV screen when in Multi Page

⑫ TTX/MIX

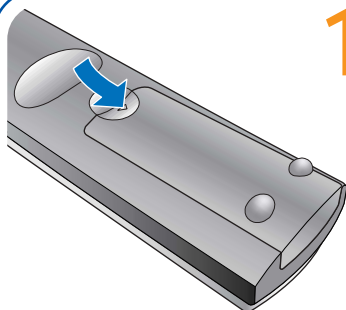
To select TTX or MIX mode

⑬ INDEX

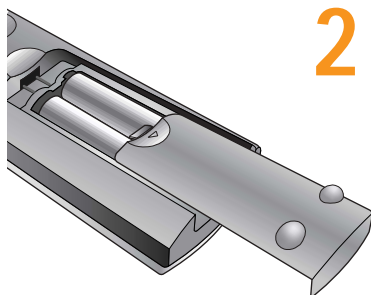
To move to INDEX in FLOF or move to INFO in TOP.



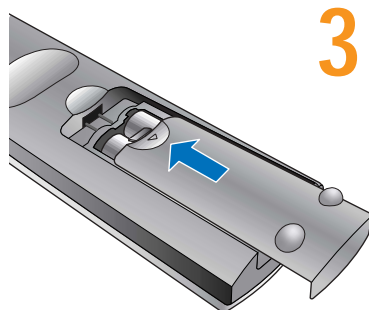
How to Insert Batteries in Remote Control



Press and hold Δ part and push to open cover.



Insert batteries with proper polarities of + and - .



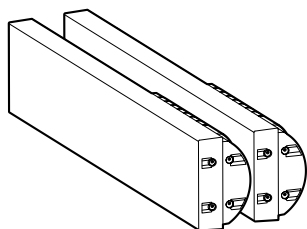
Use the remote control with cover closed.

*Battery type : 1.5V/UM-3(AA/R06)

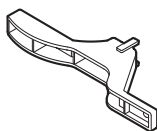


How To Use Speakers (Standing Type)

Parts configuration chart



2 Speakers (left and right)



4 brackets



16 fixing screws

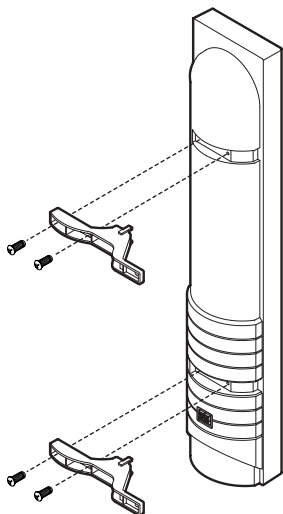


2 sets of speaker cables
(left and right)

Assembly and Connection Method

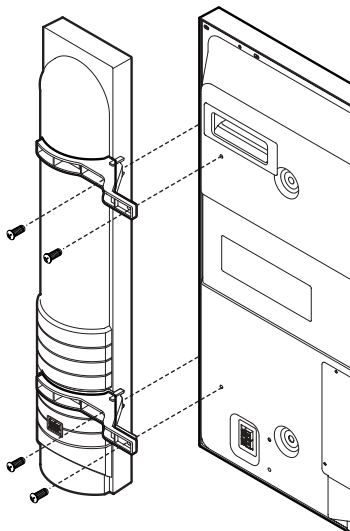
1

Insert brackets into the grooves on the rear of speakers and fasten them with fixing screws. (Left and right side each)



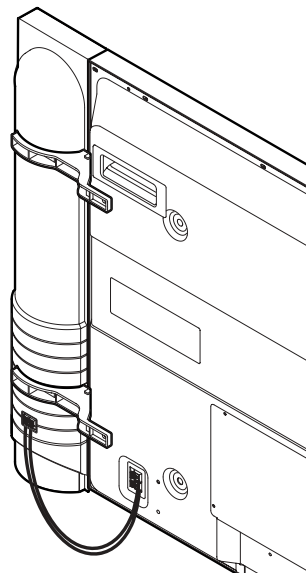
2

Fasten 1 with PDP body using fixing screws. (Left and right side each)



3

Connect speaker cables between terminals on the rear of speakers with speaker connection terminals on the rear of PDP. (Connect cables and terminals in the same color)

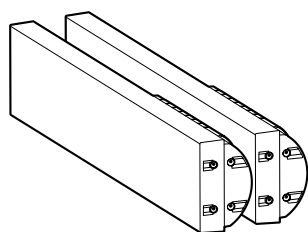


WARNING

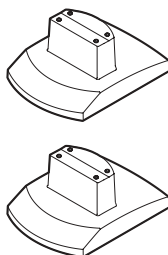
Do not move the product holding the speakers. Always use handles on the PDP. (Brackets connecting PDP and speakers may be damaged.)

How To Use Speakers (Desk Type)

Parts configuration chart



2 Speakers (left and right)



2 Speaker-stands (left and right)



8 fixing screws

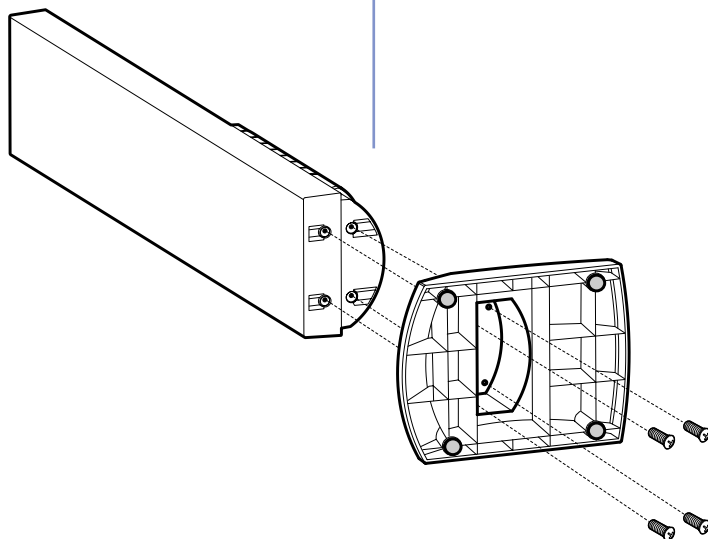


2 sets of speaker cables (left and right)

Assembly and Connect method

1

Insert speaker-stands in the grove on the bottom of speakers and fasten them with fixing screws. (Left and right side each)

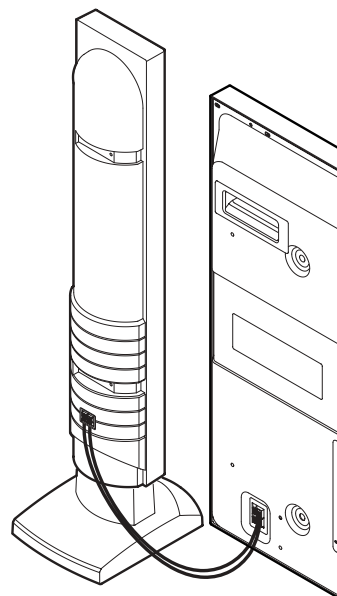


2

Upright 1 and place them on desired place left and right of PDP. (Left and right side each)

3

Connect speaker cables between terminals on the rear of speakers and speaker connection terminals on the rear of PDP. (Connect cables and terminals in the same color)



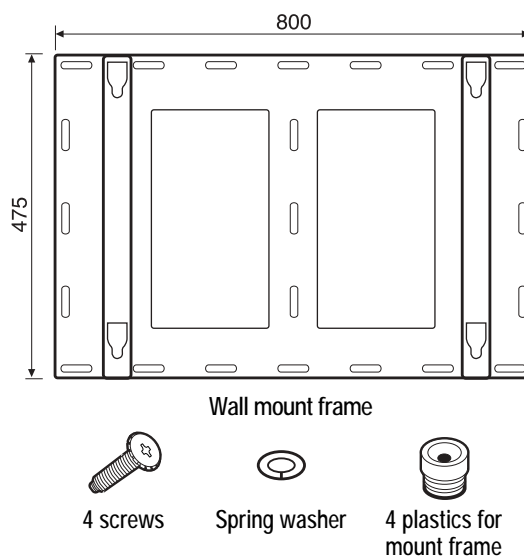


How To Install Wall Hanger Support

1. Caution

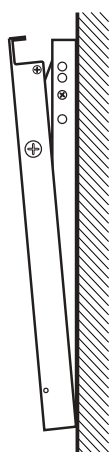
1. Install on the vertical wall surface only.
2. Do not install on the following places to protect the performance of PDP and to prevent malfunction.
 - Near sprinkler Detector
 - Near heating devices
 - Places where vibration or shock may be applied
 - Near high voltage electric power line
3. Install in a proper method with the structural materials of the wall. If the wall is not strong enough to stand weight of PDP set, reinforce the wall surface before installation.
4. Do not install within a wall.

2. Parts configuration chart

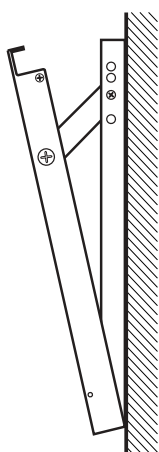


3. Angle Adjustment(Optional)

The angle of PDP may be adjusted from 0 degree to 20 degree in 5 steps with 5 degrees.
 Use the angle adjustable hole on the side of fixing panel when adjustment is needed.
 (This function is supported with angle adjustable type wall mount frame only.)



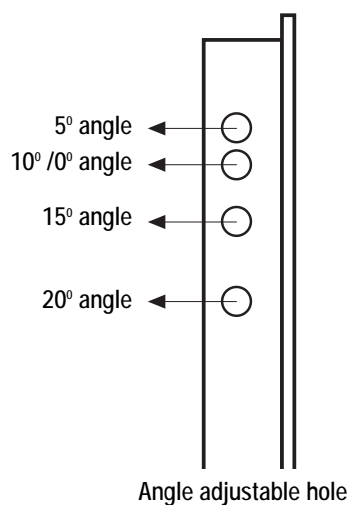
5° angle



15° angle



No angle

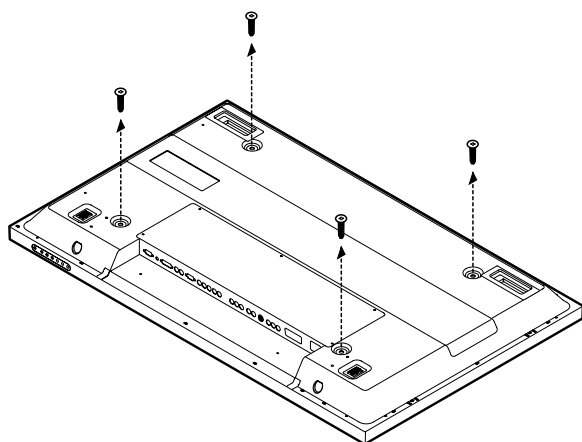


* Fixed type wall mount frame does not support angle adjustable function.

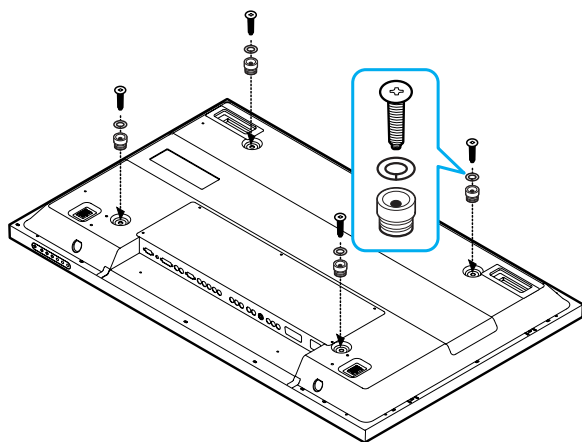
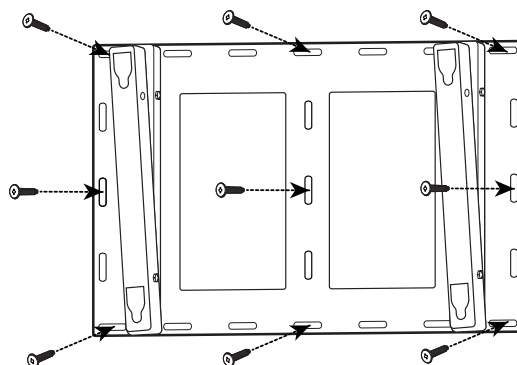
How To Install Wall mount frame

4. Installation Method

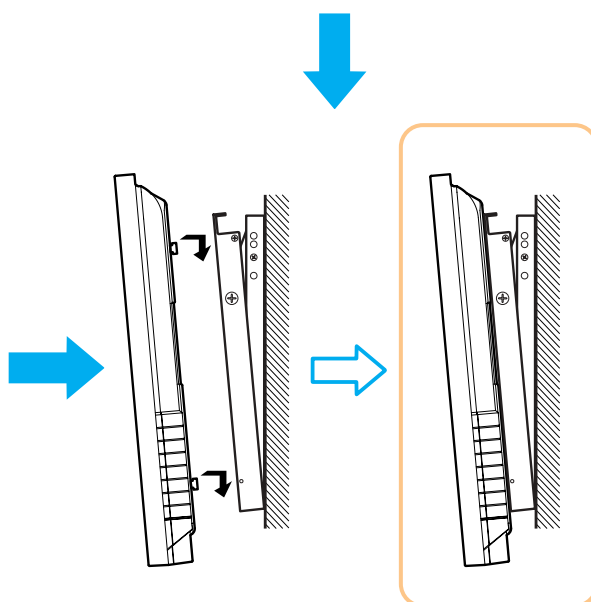
1. Unscrew screws fastened on four spots on the back of PDP.



3. Fix the wall mount frame on the wall with screws or nails.



2. Fasten the screws and plastics for mount frame on the spot where screws were as shown on the picture.

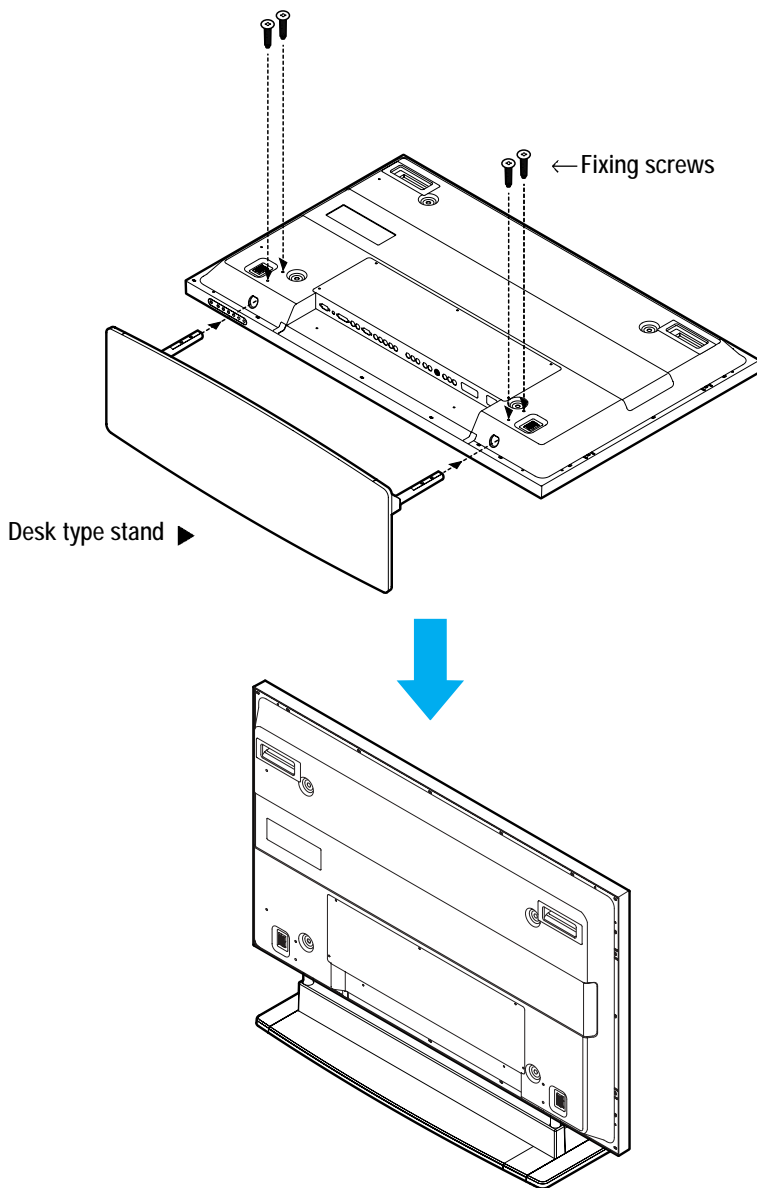


4. Hang the plastics for the mount frame on the wall mount frame. (If the PDP is lifted too much, the hanging plastic may be separated.)



How To Install Desktop Stand

1. Place the PDP body on a flat desk or shelf. Clean the surface of the desk or shelf in order to prevent scratch on the product.
2. Align the stand with PDP body below and fasten the stand bars using 4 fixing screws.
3. After the assembly is over, stand the assembled product at a desired place.



Warning : Do not install at an unstable place or on a small support.
(When a child plays around the product and touch it, PDP may fall and injure the child.)

Connections



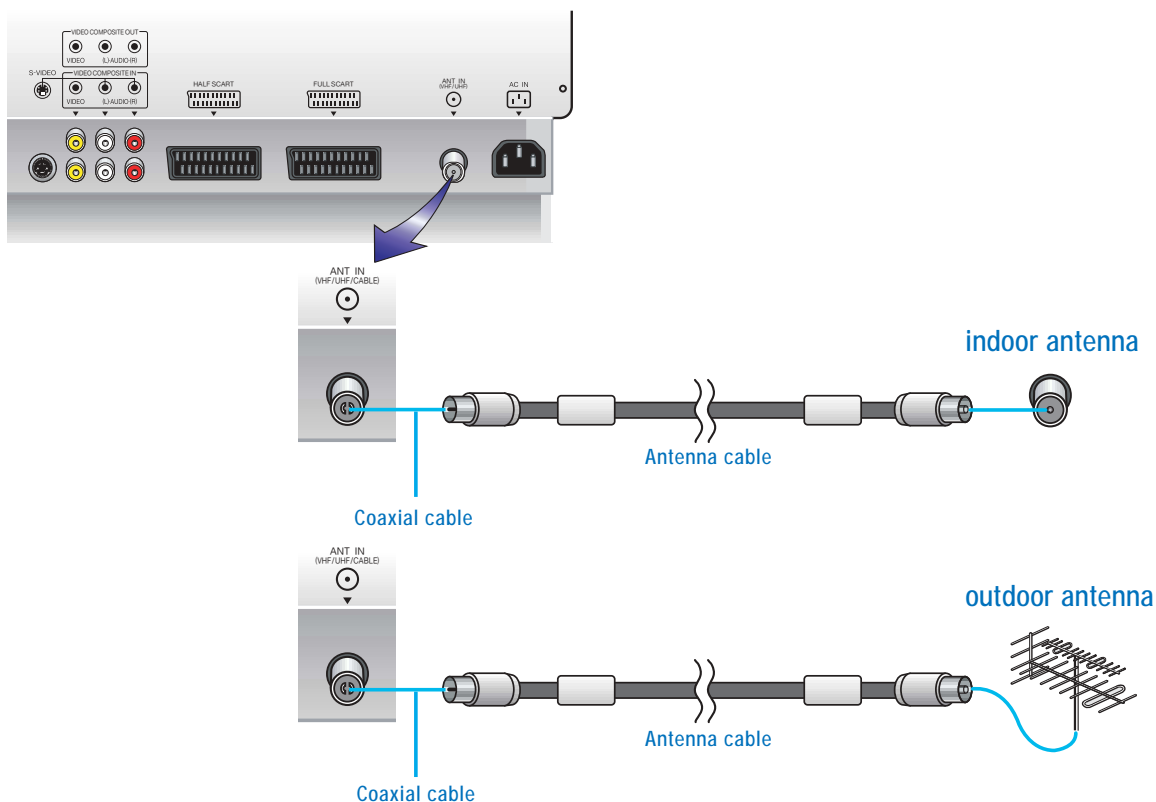
Connecting Indoor/Outdoor TV Antenna (UHF/VHF)	23
Connecting to the antenna input connection on the external equipment	24
Before connecting the video/audio connections to external devices	25
Connecting VCR, Cable/Satellite Receiver	26
Connecting a DVD player	27
Connecting DTV(Digital Broadcast) Receiver	28
Playing back a tape recorded on a camcorder	29
Connecting to a PC(DVI, D-SUB)	30
Resolutions Supported in PC	31
Scart Connection to the External Input/Output	32
Scart Pin Specifications	33



Connecting Indoor/Outdoor TV Antenna(UHF/VHF)

Connection Method

Ensure to connect an antenna cable to the antenna input connection.



How to Watch

- 1 Turn on your PDP and press **TV/AV** on remote control unit.
- 2 Press **POW A** to move between entries. And press **POW B** to select TV.
- 3 Press **CHANNEL** to select the desired channels.

CURRENT : TV		
TV	NO	CABLE
VIDEO	NO	CABLE
S-VIDEO	NO	CABLE
FH	NO	CABLE
SCART	NO	CABLE
DVD	NO	CABLE
DTV	NO	CABLE
DVI	NO	CABLE

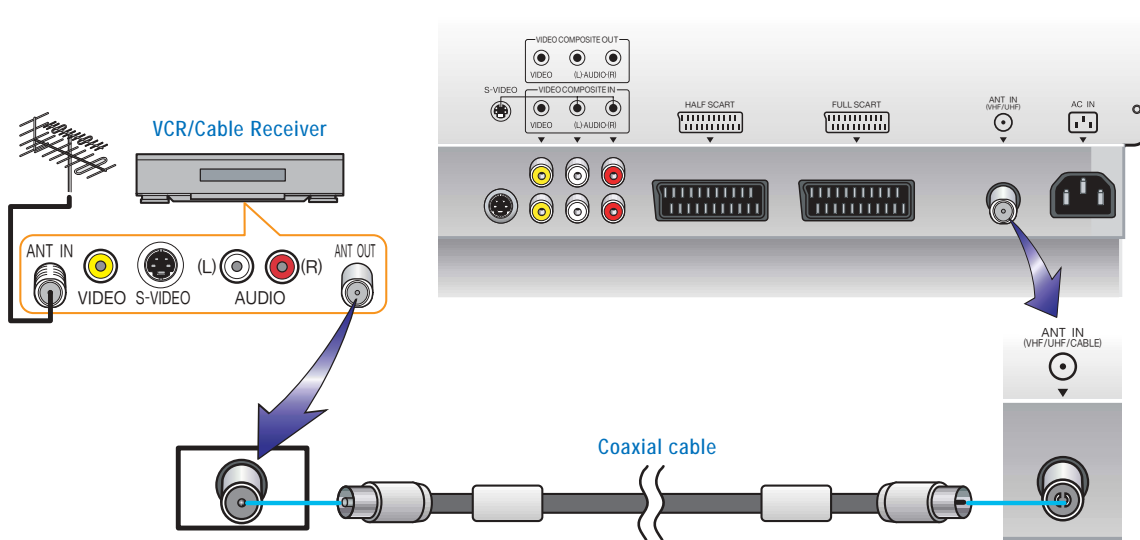
TIP

- When inserting a 75-ohm coaxial cable into the input connection, ensure the wire tip not to bend.
- If you experience poor signal reception, we recommend you purchase a signal amplifier for better picture quality.

Connecting to the Antenna Input Connection on the External Equipment

Connection Method

- 1 Connect an antenna cable to VCR/Cable/Satellite Receiver with the antenna input.
- 2 Use a coaxial cable to connect VCR/Cable/Satellite Receiver's antenna output to the antenna input on your PDP.





Before connecting the video/audio connections to external devices

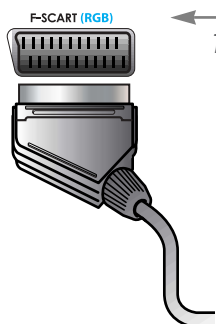
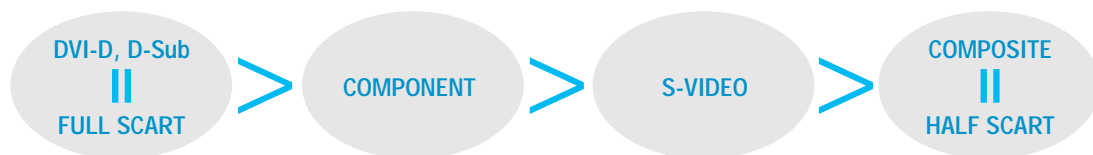
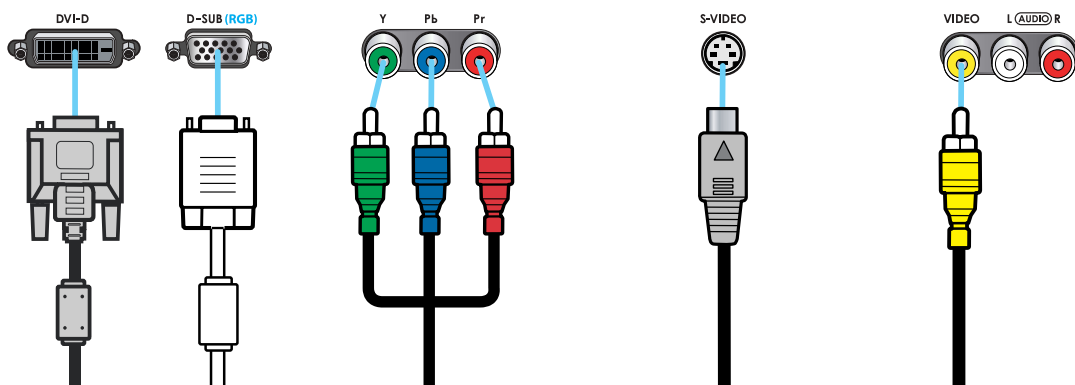
Please make sure to read the following information on connection to enjoy best picture quality.

Video/Audio connectors

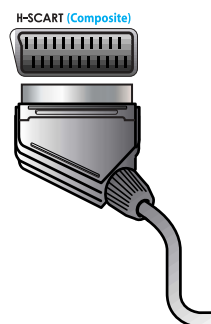
Types of video/audio cable :

- ① DVI-D ② 15-Pin D-Sub ③ COMPONENT ④ S-VIDEO ⑤ COMPOSITE ⑥ FULL SCART ⑦ HALF SCART

Best picture quality is displayed in the following order.



The superior picture quality starts from the far left side.

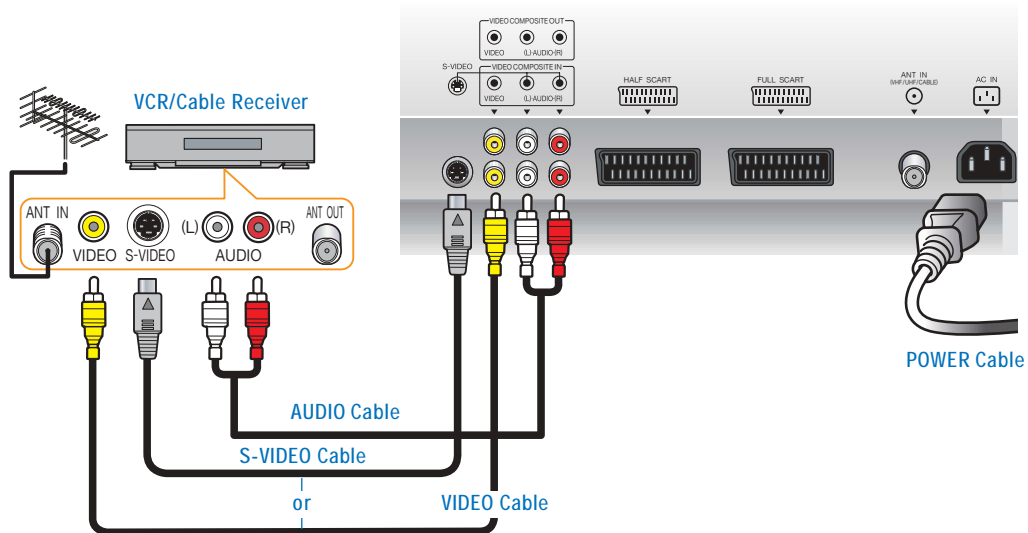


Full Scart supports Composite simultaneously

Connecting a VCR, Cable/Satellite Receiver

Connection Method

- 1 Connect Video/S-Video cable between Video/S-Video output terminal of VCR or Cable/Satellite receiver and Video/S-Video input terminal of PDP.
(Connect cables and terminal in the same colors)
- 2 Connect Audio cable (left:white color, right:red color) between Audio output terminal of VCR or cable/satellite receiver and Audio input terminal of PDP.
(Connect cables and terminal in the same colors)



How to Watch

- 1 Turn on your PDP and press **TV/AV** on remote control unit.
- 2 Press **CH-** to move between entries. And press **CH+** to select Video or S-Video.

CURRENT : S-VIDEO		
TV	VIDEO	CONNECT
S-VIDEO	CONNECT	
SCART		
SCART		
DVD		
DTV		
PC		
DVI		
	NO	CABLE
	NO	CABLE
	NO	CABLE

TIP

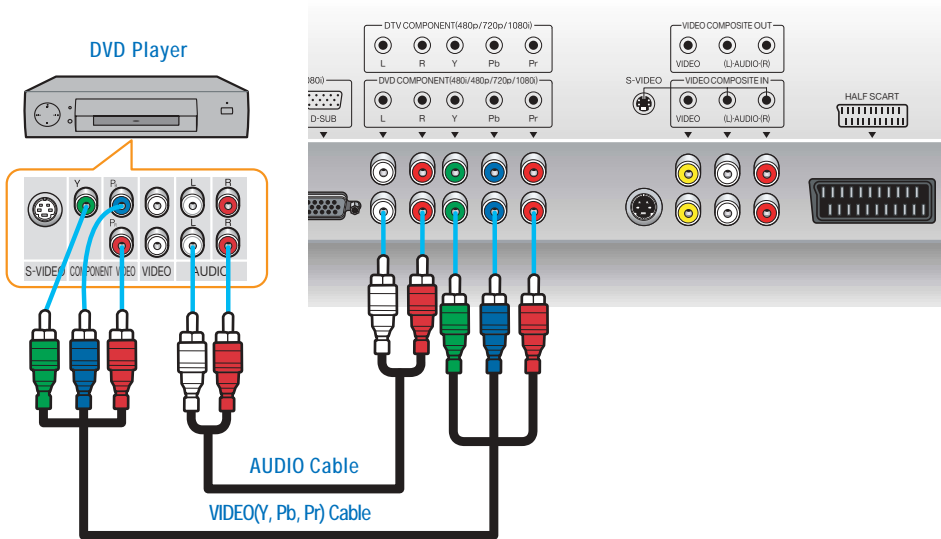
Use S-video cables for better picture quality.



Connecting a DVD Player

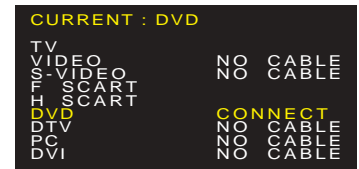
Connection Method

- 1 Connect video cables(Y, Pb, Pr) between output terminals(Y, Pb, Pr) of DVD player and the input terminals(Y, Pb, Pr) of DVD(480i/480p/720p/1080i) on the rear of PDP.
(Connect cables and terminal in the same colors)
- 2 Connect Audio cable between Audio output terminal of DVD player and Audio input terminal for DVD Audio on the rear of PDP.
(Connect cables and terminal in the same colors)



How to Watch

- 1 Turn on your PDP and press on remote control unit.
- 2 Press to move between entries. And press to select DVD.



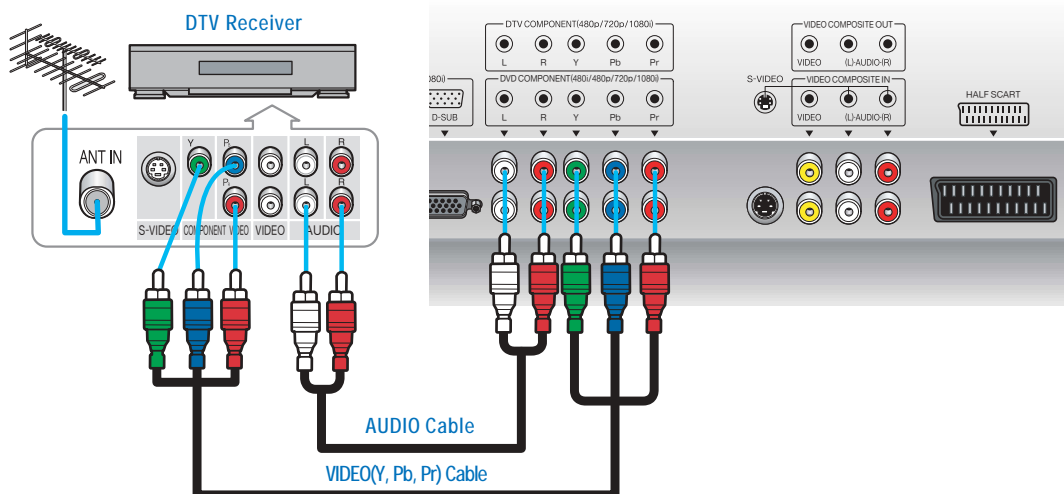
TIP

Output terminal mark(Y, Pb, and Pr) of DVD player may be written as Y, B-Y, R-Y/Y-Cb-Cr / Y-Pb-Pr.
(It depends on DVD player)

Connecting a DTV(Digital Broadcast) Receiver

Connection Method

- 1 Connect video cables(Y, Pb, Pr) between output terminals(Y, Pb, Pr) of DTV Receiver and the input terminals(Y, Pb, Pr) of DTV(480p/720p/1080i) on the rear of PDP. (Connect cables and terminal in the same colors)
- 2 Connect Audio cable between Audio output terminal of DTV Receiver and Audio input terminal for DTV Audio on the rear of PDP. (Connect cables and terminal in the same colors)



How to Watch

- 1 Turn on your PDP and press **TV/AV** on remote control unit.
- 2 Press **RIGHT** to move between entries. And press **ENTER** to select DTV.

CURRENT : DTV		
TV	VIDEO	NO CABLE
S-V	VIDEO	NO CABLE
TH	SCART	NO CABLE
DVD	SCART	NO CABLE
DTV	CONNECT	NO CABLE
PC	NO	CABLE
DVI	NO	CABLE

TIP

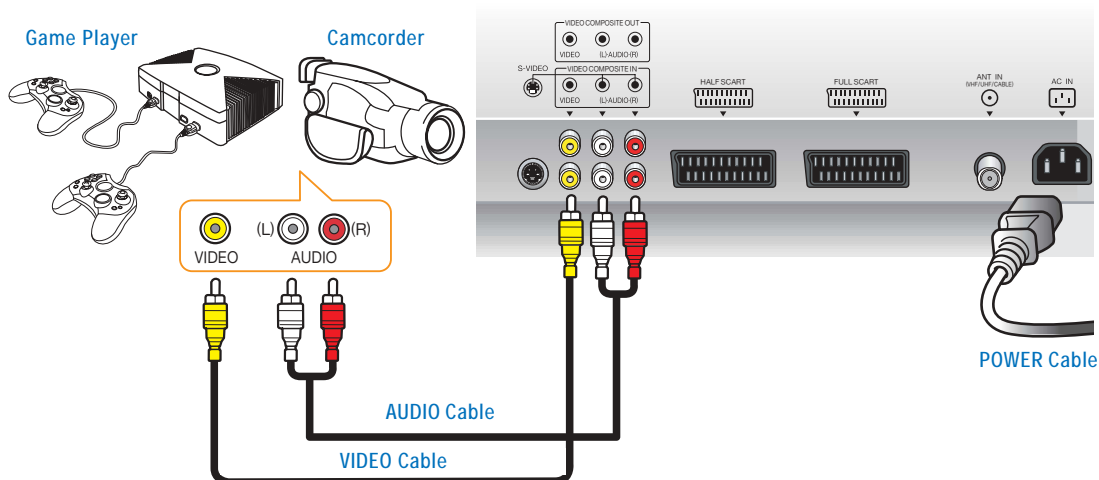
To watch digital broadcast, you have to separately purchase a digital set-top box and connect it to PDP. PDP cannot reproduce proper image, if the signal format is not supported by PDP. Please see the page 97, for the detailed signal formats that PDP supports.



Playing Back a Tape Recorded On a Camcorder

Connection Method

- 1 Connect Video cable between Video output terminal of Camcorder/Game player and Video input terminal of PDP.
(Connect cables and terminal in the same colors)
- 2 Connect Audio cable (left:white color, right:red color) between Audio output terminal of Camcorder /Game player and Audio input terminal of PDP.
(Connect cables and terminal in the same colors)



How to Watch

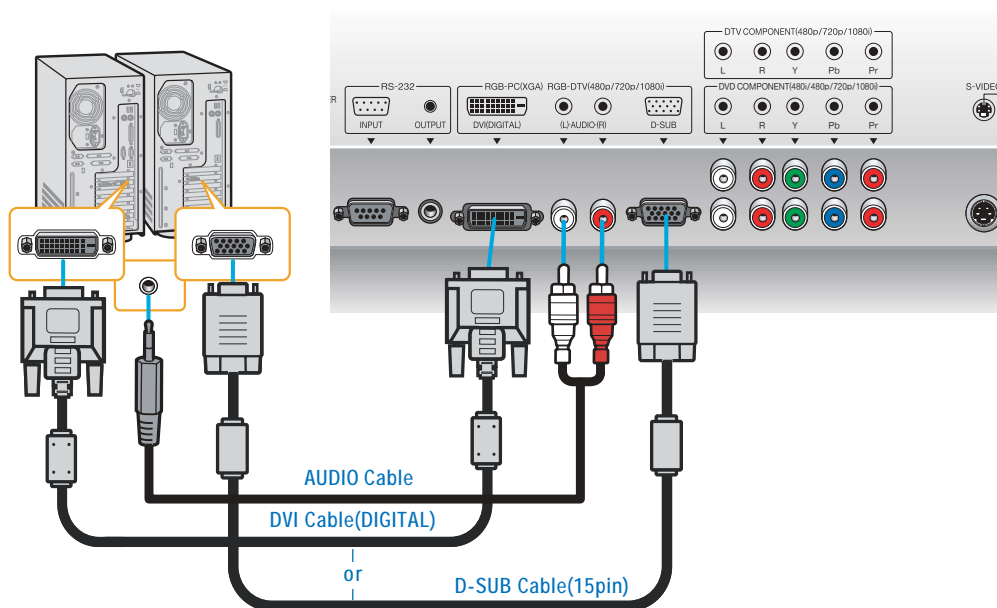
- 1 Turn on your PDP and press on remote control unit.
- 2 Press to move between entries. And press to select Video.

CURRENT : VEDIO		
TV	VIDEO	CONNECT
S-VIDEO	NO	CABLE
H-VIDEO	SCART	
DVD		
DTV		
PC		
DVI		

Connecting to a PC(DVI, D-SUB)

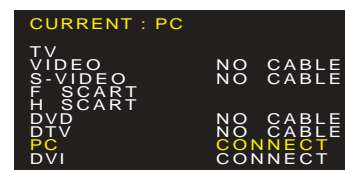
Connection Method

- 1 Connect PC signal cable(15 pins D-sub) between output terminal of PC and the D-sub input terminal of a PDP. In case of DVI(Digital) cable, connect it between output terminal for DVI(DIGITAL) of PC and input terminal for DVI of PDP.
- 2 Connect Audio cable between Audio output terminal of PC and Audio input terminal for PC of PDP. (Connect cables and terminal in the same colors)



When Using As a PC Monitor

- 1 Turn on your PDP and press **TV/AV** on remote control unit.
- 2 Press **PC/DVI** to move between entries. And press **Left/Right** to select PC or DVI.



DVI cable provides better picture quality.
This product supports plug-and-play function.
We recommend the above method if the satellite receiver supports DTV signal with DVI(Digital) and D-sub(15 pin) cable for the better quality picture.



Resolutions Supported in PC

Resolution	Horizontal frequency	Vertical frequency
640 x 350	31.47	70.09
	37.86	85.08
640 x 480	31.47	59.94
	37.86	72.80
	37.50	75.00
	43.27	85.01
720 x 400	31.47	70.08
800 x 600	37.88	60.32
	48.08	72.18
	46.88	75.00
	53.67	85.06
832 x 624	49.72	74.55
1024 x 768	48.36	60.00
	60.02	75.03
	68.68	85.00

* Recommended Resolution is 1024x768@60Hz : HQP421HR / HQP501HR

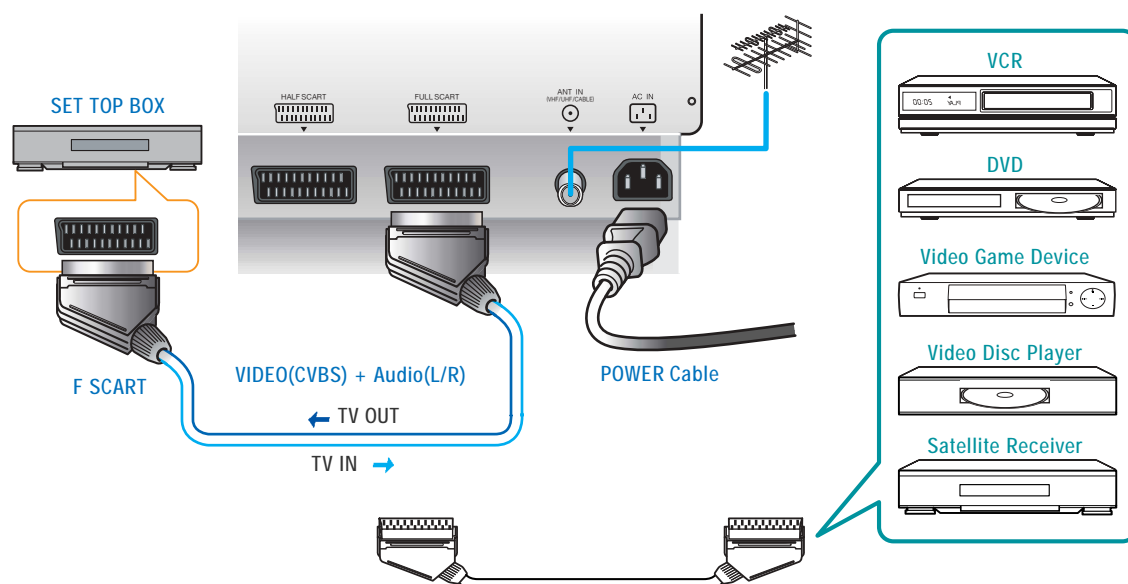
* Recommended Resolution is 800x600@60Hz : HQP421SR

Scart Connection to the External Input/Output

Connection Method

- 1 This end can be fitted with : A Scart connector
- 2 If you have a second VCR and wish to copy cassettes tape. Connect the source VCR to "F Scart" and the target VCR to "H Scart" so that you can redirect the signal from "F Scart" to "H Scart".

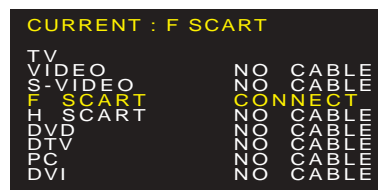
"F Scart" sends the TV broadcast signal received through an antenna to a set-top box and it receives that broadcast signal that the set top box has descrambled, which allows you to view the TV broadcast in AV Mode.



- F Scart Input : RGB, CVBS
- F Scart Output : CVBS (TV Out)
- H Scart Input : CVBS
- H Scart Output : CVBS (Monitor Out)

How to Watch

- 1 Turn on your PDP and press on remote control unit.
- 2 Press to move between entries. And press to select F Scart or H Scart.



TIP

When switching voltage comes into the Scart-Pin 8 during viewing a TV program, the current mode will be switched to Scart mode.



Scart Pin Specifications

If you wish to connect other equipment via the scart connectors on your TV, contact your dealer or a qualified technician to wire the A/V cable as illustrated below.

PIN	SIGNAL	PIN	SIGNAL
1	Audio Output R	12	-
2	Audio Input R	13	Red Input GND
3	Audio Output L	14	-
4	Audio Input GND	15	RGB Red Input
5	Blue Input GND	16	RGB Blinking Signal Input
6	Audio Input L	17	Video Output GND
7	RGB Blue Input	18	Video Input GND
8	Switching Voltage Input	19	Video Output (CVBS)
9	Green Input GND	20	Video Input (CVBS)
10	-	21	Scart Connector GND
11	RGB Green Input		

Picture Setup



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How to Select the Picture Mode

Users can adjust picture mode automatically according to the input mode(TV, Video, S-Video, F/H Scart, DVD, DTV).

Press Menu button.
Menu items appear on the screen.

1 Press Up and Down buttons to move to "Picture" icon.

2 Press Left and Right buttons to select "MODE".

3 Press Left and Right buttons, then the menu changes in order below.
⇒ STANDARD ⇒ DYNAMIC ⇒ MOVIE
⇒ MILD ⇒ USER ⇒

Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

STANDARD : For general contents. It fits most video contents.

DYNAMIC : For a clear display.

MOVIE : For movies.

MILD : For a soft display.

USER : When the user wants to set the values ➔ [see the next page](#)

PICTURE

How To Directly Select Picture Mode : Press button.

- Users can select Standard ⇒ Dynamic ⇒ Movie ⇒ Mild ⇒ USER, when the input mode is TV, S-Video, F/H Scart, DVD, DTV.
- Users can select Standard ⇒ Low(Text Mode) ⇒ High(Movie), when the input mode is PC or DVI.

TIP

In the user's mode, the users can adjust at thier preference contrast, brightness, sharpness, color, tint at standard, dynamic, movie, or mild mode.

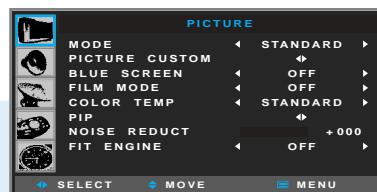
*Adjustments menu may be different according to the input source.

How to Set the Desired Picture

Users can manually adjust the picture in their own ways.



Press Menu button.
Menu items appear on the screen.



1

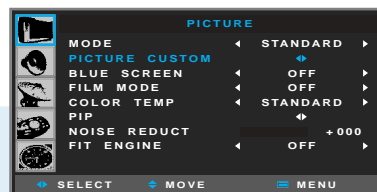


Press Up and Down buttons to move to
"Picture" icon.

2



Press Left and Right buttons to select
"PICTURE"



3

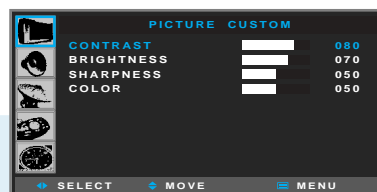


Press Up and Down buttons to move to
"PICTURE CUSTOM".

4



Press Left and Right buttons to select
"PICTURE CUSTOM".
Picture Custom menu appears.



5



Choose one of the items listed,
then Press Left and Right buttons to adjust.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

CONTRAST : Adjust the brightness and darkness of object and background.

BRIGHTNESS : Adjust the brightness of the entire picture.

SHARPNESS : Adjust clarity of outline of objects.

COLOR : Adjust colors into deeper or lighter colors.

TINT : Adjust colors naturally. ➔ This only applies to NTSC mode.

TIP

Setting of Color and Tint is not supported in PC, DVI and DTV input modes.



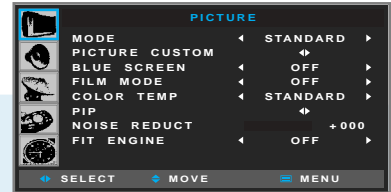
How to Set Blue Screen

If there is no broadcast or no signal from a connected external device, your PDP will show a blue screen.

If a broadcast signal comes in, the blue screen will be converted to a normal screen.



Press Menu button.
Menu items appear on the screen.



1

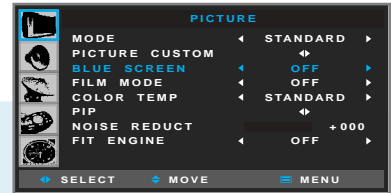


Press Up and Down buttons to move to
"Picture" icon.

2



Press Left and Right button to select
"PICTURE".



3



Press Up and Down button to move to
"BLUE SCREEN".

4



Press Left and Right button to "ON/OFF".



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

TIP

In the status of Blue Screen active, when the main picture receives no signal during watching a TV or VCR program as a main picture while viewing a VCR or TV program as a sub picture in PIP mode, the entire screen (including both main and sub pictures) will turn blue. When the main picture signal comes back, the both pictures will be restored to normal.

How to Set Film Mode

Set Film Mode to receive a crisp, clear picture without flickering.

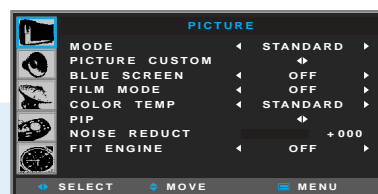


Press Menu button.
Menu items appear on the screen.

1



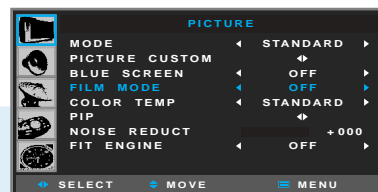
Press Up and Down buttons to move to
"Picture" icon.



2



Press Left and Right button to select
"PICTURE".



3



Press Up and Down button to move to
"FILM mode".

4



Press Left and Right button to "ON/OFF".



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



You may experience the distortion of the screen edge during a DVD or VCR playback. This may be caused by bad edit of a film (a DVD title or tape). If you have come across this symptom, select OFF in the Film Mode.

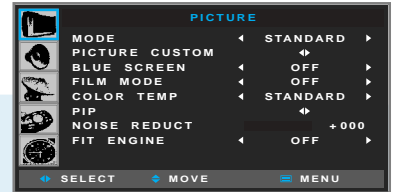


How to Select a Color Temperature

Users can adjust Color as users want.



Press Menu button.
Menu items appear on the screen.



1

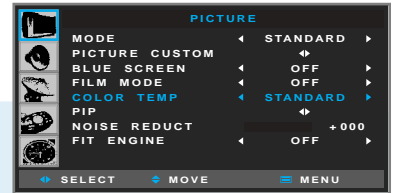


Press Up and Down buttons to move to
"Picture" icon.

2



Press Left and Right button to select
"PICTURE".



3



Press Up and Down button to move to
"COLOR TEMP".

4



Press Left and Right button, then Mode changes in order below.
⇒ Standard ⇒ Cool ⇒ Warm ⇒



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

STANDARD : Colors for general picture.

COOL : Cool colors with bluish tone.

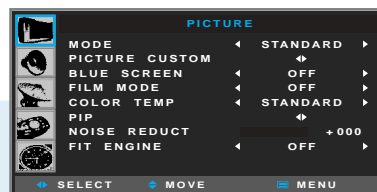
WARM : Warm colors with reddish tone.

How to Set PIP [Mode]

This is to set PIP(Picture In Picture) mode or Twin mode.



Press Menu button.
Menu items appear on the screen.



1

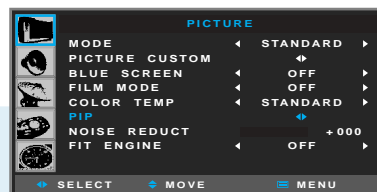


Press Up and Down buttons to move to
"Picture" icon.

2



Press Left and Right button to select
"PICTURE".



3



Press Up and Down button to move to
"PIP".



4



Press Left and Right button to select
"PIP".
Menu items appear on the screen.

5



Press Up and Down button to move to
"MODE".

6



Press Left and Right button, then Mode changes in order below.
⇒ PIP ⇒ TWIN ⇒ OFF ⇒



PIP : To watch the Sub screen in the main
screen at once.



TWIN : To watch two screens in half and
half.

After setting this, go to step 7 to set the SOURCE.



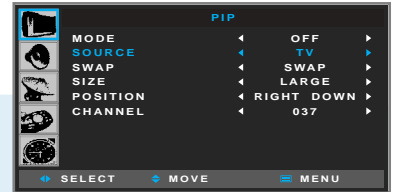
How to Set Multi-Screen [Input Source/Position/Size]

This is to set the Input Source, Position and Size of the Sub-picture. (This function is available only when PIP mode active.)

7



Press Up and Down buttons to move to "SOURCE".



8



Press Left and Right button, then source changes in order below.

TV → VIDEO → S-VIDEO → F SCART →
H SCART → DVD → DTV → PC → DVI →

*In case of PIP mode, go to step 9
if you need to set the "SWAP" of Main and sub pictures.*

9



Press Up and Down buttons to move to "SWAP".



10



Press Left and Right buttons.

*In case of PIP mode, go to step 11
if you need to set the "SIZE" of Sub picture.*

11



Press Up and Down buttons to move to "Size".



12



Press Left and Right buttons to set to "LARGE/SMALL".

*In case of PIP mode, go to step 13
if you need to set the "POSITION" of Sub picture.*

13



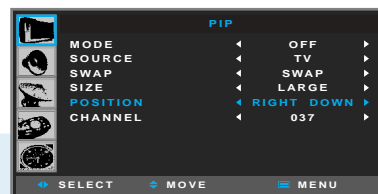
Press Up and Down buttons to move to "POSITION".

14 

Press Left and Right button, then position changes in order below.

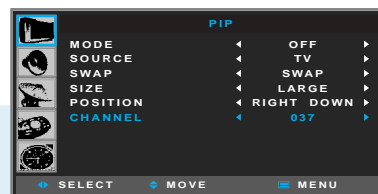
⇒ Right Down ⇒ Left Down ⇒ Left Up ⇒ Right Up ⇒

In case the Input source in Sub picture is TV, go to step 15 when you wish to change the channels of Sub picture.



15 

Press Up and Down buttons to move to "Channel".

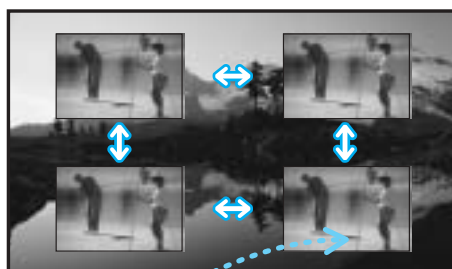


16 

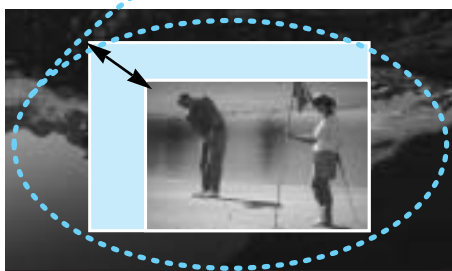
Press Left and Right button to select "Channel Number".



Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.



▲ Adjust the location in PIP



▲ Adjust the size in PIP


For details on Hot-keys on the remote control, please go to the next page.



Hot-Keys on the Remote Control


How to Directly Turn PIP FUNCTION ON/OFF : Press  button.

To turn ON/OFF the PIP function

How To Directly Adjust PIP MODE & SIZE : Press  button.

To watch PIP/TWIN ways or to adjust the Size of Sub picture.

⇒ Large ⇒ Small ⇒ TWIN ⇒


How To Directly Change Sub Source : Press  button.

Press Up and Down buttons to move to the Sub Source.
And select using Left or Right button.

CURRENT : TV		
TV	VIDEO	NO CABLE
S-VIDEO	SCART	NO CABLE
H-VIDEO	SCART	NO CABLE
DVD	DTV	NO CABLE
PC	DTV	NO CABLE
DVI	DTV	NO CABLE

How To Directly Set The SWAP : Press  button.

To swap the Main picture and sub picture.

How To Directly Set The Sub Channel : Press  button.



Main and sub pictures cannot have the same input source.

Supported PIP Table

PIP : 0 → Supported, X → Not Supported

Main \ Sub	PC	DVI	DTV	DVD	TV	S-Video	Video	H Scart	F Scart
PC	X	X	X	X	0	0	0	0	0
DVI	X	X	X	X	0	0	0	0	0
DTV	X	X	X	X	0	0	0	0	0
DVD	X	X	X	X	0	0	0	0	0
TV	0	0	0	0	0	0	0	0	0
S-Video	0	0	0	0	0	X	0	0	0
Video	0	0	0	0	0	0	X	0	0
H Scart	0	0	0	0	0	0	0	X	0
F Scart	0	0	0	0	0	0	0	0	X

How to Set Noise Reduction

This is to eliminate some noise on the screen in Video mode.

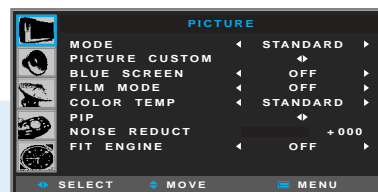


Press Menu button.
Menu items appear on the screen.

1



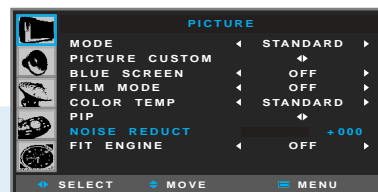
Press Up and Down buttons to move to
"Picture" icon.



2



Press Left and Right button to select
"PICTURE".



3



Press Up and Down button to move to
"NOISE REDUCT".

4



Press Left and Right button to adjust
Screen quality.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

Refer to the mark of the next page and set.

TIP

In the Noise Reduction, the more you reduce the screen noise, the more the sharpness level of the pictures may become degraded.

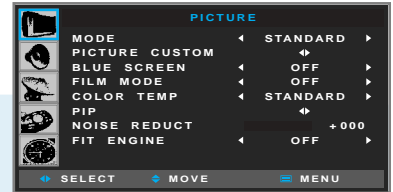


How to Select the Fit(Fine Image Technology) Engine Mode

Fit Engine mode function allows users to experience more lively, clearly and brightly images. (For 50" PDP only)



Press Menu button.
Menu items appear on the screen.



1

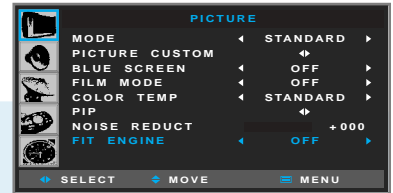


Press Up and Down buttons to move to
"Picture" icon.

2



Press Left and Right button to select
"PICTURE".



3

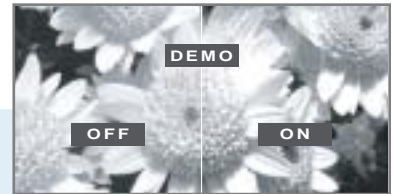


Press Up and Down button to move to
"FIT ENGINE".

4



Press Left and Right button, then the menu
changes in order below.
⇒ OFF ⇒ DEMO ON ⇒ ON ⇒



Press MENU button after the setting is done,
and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



Only In the FIT ENGINE demo mode, Demo OSD can appear on the screen after 1 or 2 seconds.

Sound Setup



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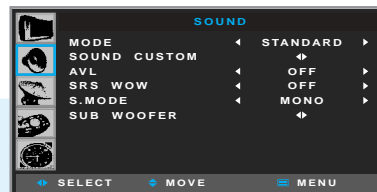


How to Select the Audio Mode

Users can adjust sound mode automatically as users want.



Press Menu button.
Menu items appear on the screen.



1

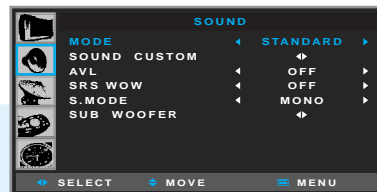


Press Up and Down buttons to move to
"SOUND" icon.

2



Press Left and Right buttons to select
"SOUND".



3



Press Left and Right button, then the menu
changes in order below.

⇒ Standard ⇒ Music ⇒ Movie
⇒ News ⇒ User ⇒



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

STANDARD : For the general sound. This fits most audio contents.

MUSIC : For enjoying original sound.

MOVIE : For grandiose sound.

NEWS : For the clear sound.

USER : When the user wants to set the value ➔ [see the next page](#)

SOUND

How To Directly Select Picture Mode : Press  button.

Users can select STANDARD ⇒ MUSIC ⇒ MOVIE ⇒ NEWS ⇒ USER in order.

How to Set the Desired Audio

Users can manually adjust the sound in thier own ways.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to
"SOUND" icon.

2



Press Left and Right buttons to select
"SOUND".



3

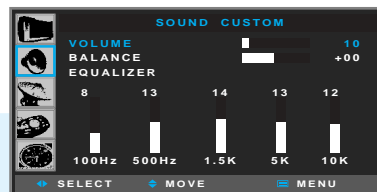


Press Up and Down buttons to move to
"SOUND custom ".

4



Press Left and Right buttons to select
"SOUND custom".
Sound Custom menu appears.



5



Choose one of the items listed,
then Press Left and Right buttons to adjust.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

VOLUME : Adjusts the volume.

BALANCE : Adjusts the balance of left and right speakers.

EQUALIZER : Adjusts the audio output signal in the desired band.



How to Select AVL

This function automatically gives a similar volume size to each channel.



Press Menu button.
Menu items appear on the screen.



1

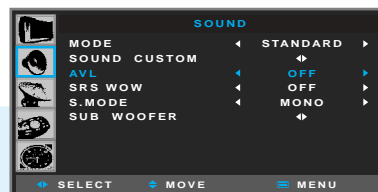


Press Up and Down buttons to move to
"SOUND" icon.

2



Press Left and Right buttons to select
"SOUND".



3



Press Up and Down buttons to move to
"AVL".

4



Press Left and Right buttons to "ON/OFF".



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

How to Select SRS WOW(Surround)

You can enjoy the spectacular, clear and crisp sound.



Press Menu button.
Menu items appear on the screen.



1

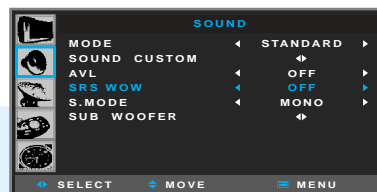


Press Up and Down buttons to move to
"SOUND" icon.

2



Press Left and Right buttons to select
"SOUND".



3



Press Up and Down buttons to move to
"SRS WOW".

4



Press Left and Right buttons to "ON/OFF".



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

TIP

The SRS WOW function is activated only when the audio input signal is Stereo.



is a trademark of SRS Labs, Inc.

WOW technology is incorporated under license from SRS Labs, Inc.

Remarkable Enhancement for Mono or Stereo Playback

WOW™, is an award-winning, patented technology that significantly enhances the quality of mono and stereo audio material. It creates the perception of improved dynamics and bass performance over standard speakers or headphones.

WOW makes up for the limitations inherent in smaller speakers and headphones by providing a panoramic three-dimensional audio image that extends the sound in both the horizontal and vertical planes well beyond the speakers or headphones themselves. As a result, manufacturers of small audio devices, televisions, wireless and personal/portable products can dramatically improve their product's audio performance without enlarging the speaker size. The enriching effects of WOW are especially noticeable on digitally compressed mono or stereo audio in formats such as MP3, WMA and audio CD in which the "tinny" hollow sound is greatly reduced.



How to Select S. Mode

Users can adjust S. Mode as users want.



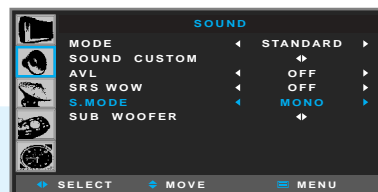
Press Menu button.
Menu items appear on the screen.



Press Up and Down buttons to move to
"Sound" icon.



Press Left and Right buttons to select
"Sound".



Press Up and Down buttons to move to
"S. Mode".



Press Left and Right buttons,
then Mode changes as shown in the Table on the next page.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

How To Directly Select S. Mode : Press  button.

During FM MONO broadcast, pressing the S.MODE key will display the current status.
(On the OSD lit, pressing the S.MODE key a second time will make no change.)

When in AV mode, pressing S.MODE will display the current status. On the OSD lit, pressing the S.MODE key a second time will toggle between MONO and STEREO mode.

This S. Mode displays the current Audio signal status, and controls the processing of Audio signal. When power is switched on, the mode is automatically preset to either "Dual-I or Stereo", depending on the current signal transmission condition.

	TYPE OF BROADCAST	ON-SCREEN INDICATION
NICAM Stereo	Regular Broadcast (Standard audio)	Mono (Normal use)
	Regular+ NICAM Mono	(Mono) NICAM ↔ Mono (Normal)
	NICAM Stereo	Stereo (NICAM) ↔ Mono (Normal)
	NICAM Dual-I/II	Dual-I (NICAM) ⇒ Dual-II (NICAM) ⇒ Mono (Normal) ↑
A2 Stereo	Regular broadcast (Standard audio)	Mono (Normal use)
	Bilingual or Dual-I/II	Dual-I ↔ Dual-II
	Stereo	A2 Stereo ↔ Mono (Forced)

TIP

- If the signal reception conditions deteriorate, setting to Mono will make your listening condition better.
- If the stereo signal is weak and automatic mode switching occurs, then the current mode is switched to the Mono.



How to Set the Output of Subwoofer

You can set this function when you wish to install your subwoofer speaker system.



Press Menu button.
Menu items appear on the screen.



1

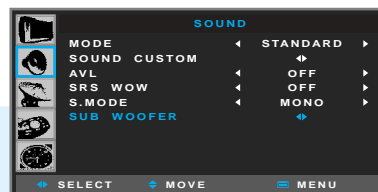


Press Up and Down buttons to move to "SOUND" icon.

2



Press Left and Right buttons to select "SOUND".



3

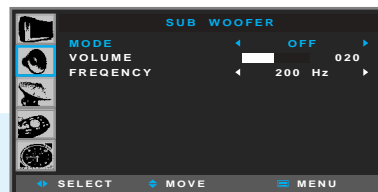


Press Up and Down buttons to move to "SUB WOOFER".

4



Press Left and Right buttons to select "SUB WOOFER".
Sub Woofer menu appears.



5



Choose item, then Press Left and Right buttons to adjust.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

TIP

- The frequencies in the entry are the subwoofer's frequency range.
- You make sure to use a subwoofer speaker system with built-in amplifier.

Channel Setup



Storing channel Automatically	55
Storing channel Manually	56
Assigning Names to Channel	58
Skipping Unwanted Channels	59
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Teletext Feature	64
Displaying the Teletext Information	65
Selecting Display Options	65

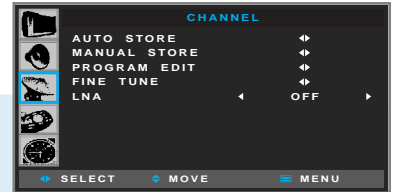


Storing Channels Automatically

You can scan channels available to you and their availability depends on your country. Automatically allocated programme numbers may not correspond to actual or desired programme numbers. However, you can sort the numbers manually and clear any channels you do not wish to watch. (Ensure to do this during TV broadcast available.)



Press Menu button.
Menu items appear on the screen.



1

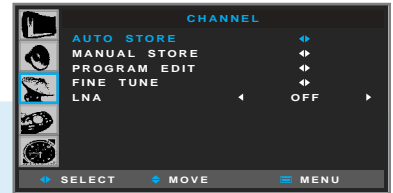


Press Up and Down buttons to move to
"CHANNEL" icon.

2



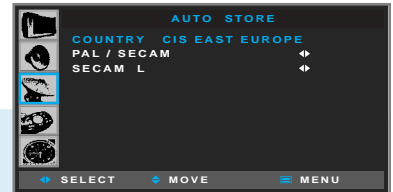
Press Left and Right buttons to select
"CHANNEL".
AUTO STORE is highlighted.



3



Press Left and Right buttons to select
"AUTO STORE".
Auto Store menu appears.



4



Press Left and Right buttons to select
your country.

5



Press Up and Down buttons to move to
"PAL/SECAM or SECAM L".



6



Press Left and Right buttons to select
"PAL/SECAM or SECAM L", then
store the selected channels.



Press MENU button after the setting is done,
and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

PAL/SECAM : Scans PAL and SECAM signals.
SECAM L : Scans a SECAM signal and scans PAL/SECAM.

TIP

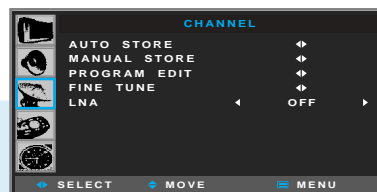
If you press the MENU button in the middle of AUTO STORE, the first stored channel will be displayed, and the AUTO STORE stops.

Storing Channels Manually

You can store the TV channels, including those received via cable networks when storing channels.



Press Menu button.
Menu items appear on the screen.



1

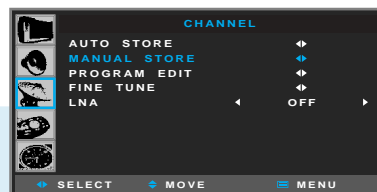


Press Up and Down buttons to move to
"CHANNEL" icon.

2



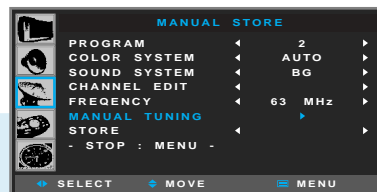
Press Left and Right buttons to select
"CHANNEL".



3



Press Up and Down buttons to move to
"Manual STORE".



4



Press Left and Right buttons to select
"Manual STORE".
Manual Store menu appears.

5



Press Up and Down buttons to move to
item.

6



Choose item, then Press Left and Right buttons
to adjust.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

For details, see the next page.



Program Number

Press Left and Right buttons to change the current displayed channels to the desired channels.

Color System

This function displays the color system status of the current channel. The mode changes in order below.

⇒ AUTO ⇒ PAL ⇒ SECAM ⇒ NTSC4.43 ⇒ NTSC3.58 ⇒

Sound System

This function displays the sound system status of the current channel. The mode changes in order below.

⇒ BG ⇒ DK ⇒ I ⇒ M ⇒ L ⇒

Channel Edit

You can change channel names.

Frequency

This function displays the frequency of the current displayed channel. Press Left and Right buttons to change the current frequency band to desired one. (You can move at 8MHz per step.)

Manual Tuning

When a currently tuned channel is tuned to a next channel, the tuning process will stop.

- ▶ buttons : + Channel Tuning (at a current channel)
- ◀ buttons : - Channel Tuning (at a current channel)

Store

The function stores the adjustments. (◀ ▶ buttons : Executes Store)

*If you fail to execute Store, the adjusted information in the channels will not be stored.

TIP

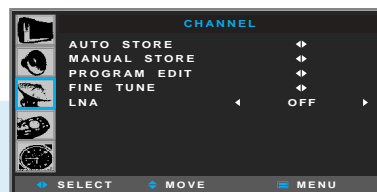
NTSC or SECAM may not be supported in some regions.

Assigning Names to Channel

Channel names will be assigned automatically when channel information is broadcast. These names can be changed, allowing you to assign new names.



Press Menu button.
Menu items appear on the screen.



1

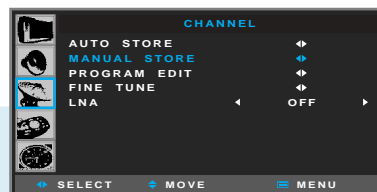


Press Up and Down buttons to move to
"CHANNEL" icon.

2



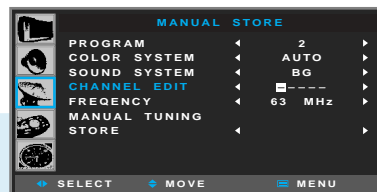
Press Left and Right buttons to select
"CHANNEL".



3



Press Up and Down buttons to move to
"Manual STORE".



4

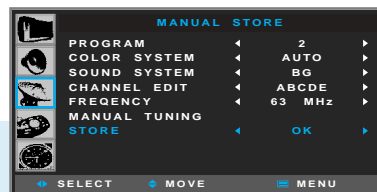


Press Left and Right buttons to select
"Manual STORE".
Manual Store menu appears.

5



Press Up and Down buttons to move to
"Channel edit".



6



Press Left and Right buttons to select,
then cursors are appear and edit is available.
Select a letter (A~Z), a number (0~9) or blank space.
If you need to erase, press ◀ button, which is the
same feature as back space.

7



Press MENU button after the setting is done,
and move to STORE to store the settings.

8



Press Left and Right buttons to select
"OK".



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



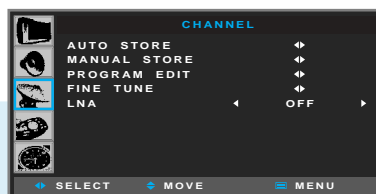
Skiping Unwanted Channels

You can exclude the channels of your choice from the channel scan operation. When you scan through the stored channels, those that you have chosen to skip are thus not displayed.

All channels that you do not specifically choose to skip are displayed during scanning.



Press Menu button.
Menu items appear on the screen.



1

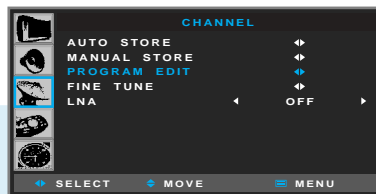


Press Up and Down buttons to move to
"CHANNEL" icon.

2



Press Left and Right buttons to select
"CHANNEL".



3

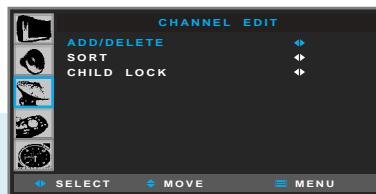


Press Up and Down buttons to move to
"Program edit".

4



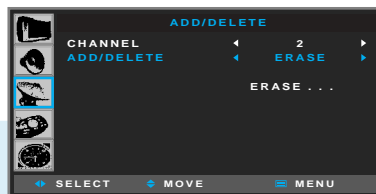
Press Left and Right buttons to select
"Program edit".
Channel Edit menu appears.



5



Press Left and Right buttons to select
"ADD/DELETE".
ADD/DELETE menu appears.



6



*The displayed channel number
indicates a current channel.
Press Left and Right buttons to select
Channel Number.

7



Press Up and Down buttons to move to
"ADD/DELETE".

8



Press Left and Right buttons, then select ADD or ERASE.



*Press the menu button and then go to step 9
if you need to sort the stored channels.*

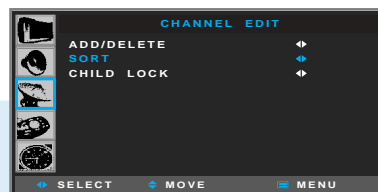
Sorting the Stored Channels

This operation allows you to change the program number of stored channels.
This operation may be necessary after using auto store.

9



Press Up and Down buttons to move to "SORT".



10

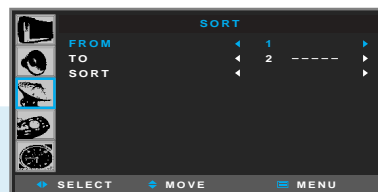


Press Left and Right buttons to select "SORT".

11



Press Up and Down buttons to move to "From".



12

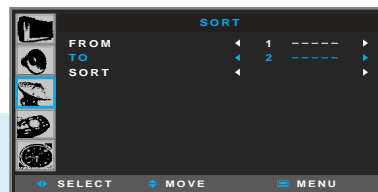


Press Left and Right buttons to select the channel that you wish to move.

13



Press Up and Down buttons to move to "To".



14

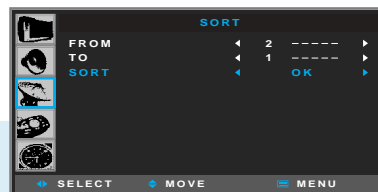


Press Left and Right buttons to select the Number of the program to which the channel is to be moved.

15



Press Up and Down buttons to move to "SORT".



16



Press Left and Right buttons, then select OK.

Press the menu button and then go to step 18 if you need to activate the Child Lock.



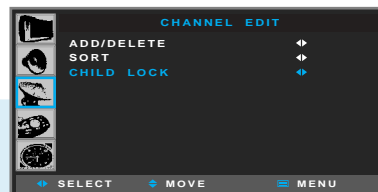
Activating the Child Lock

This feature allows you to lock the television so that it cannot be controlled by manual keys. It can however still be controlled by the Remote Control. Thus by keeping the Remote Control away from unauthorised users such as children, you can prevent them from accessing unsuitable programme.

18



Press Up and Down buttons to move to "Child Lock".



19



Press Left and Right buttons to select "Child Lock".
Child Lock menu appears.

20



Press Up and Down buttons to move to "Channel".



21



Press Left and Right button to select the required Channel.

22



Press Up and Down buttons to move to "Locking".



23



Press Left and Right buttons to set to "Lock/Unlock".



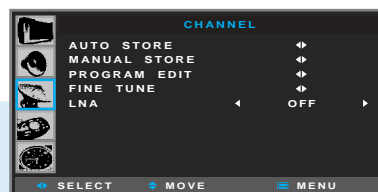
Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.

Fine Tuning Channel Reception

If the reception is clear, you do not have to fine tune channels, as this is done automatically during the search and store operation. If the signal is weak or distorted, you may have to fine tune the channel manually.



Press Menu button.
Menu items appear on the screen.



1

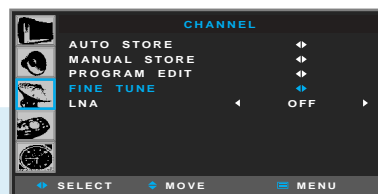


Press Up and Down buttons to move to
"CHANNEL" icon.

2



Press Left and Right buttons to select
"CHANNEL".



3



Press Up and Down buttons to move to
"Fine Tune".

4



Press Left and Right buttons to select
"Fine Tune".
New Menu items appears.



5



Press Left and Right buttons to
adjust Screen.
*Channel number is current channel.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



OSD for the fine tuned channels is highlighted in blue.
On INFORMATION active, MFT (Manual Fine Tune) after the channel number will be displayed.



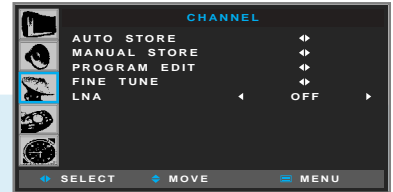
Using the LNA(Low-Noise-Amplifier) Feature

If the reception is clear, you don't have to use this feature.

If the signal is weak or distorted, try the followings.



Press Menu button.
Menu items appear on the screen.



1

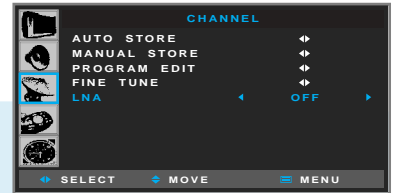


Press Up and Down buttons to move to
"CHANNEL" icon.

2



Press Left and Right buttons to select
"CHANNEL".



3



Press Up and Down buttons to move to
"LNA".

4



Press Left and Right buttons to
ON/OFF.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

Teletext Feature

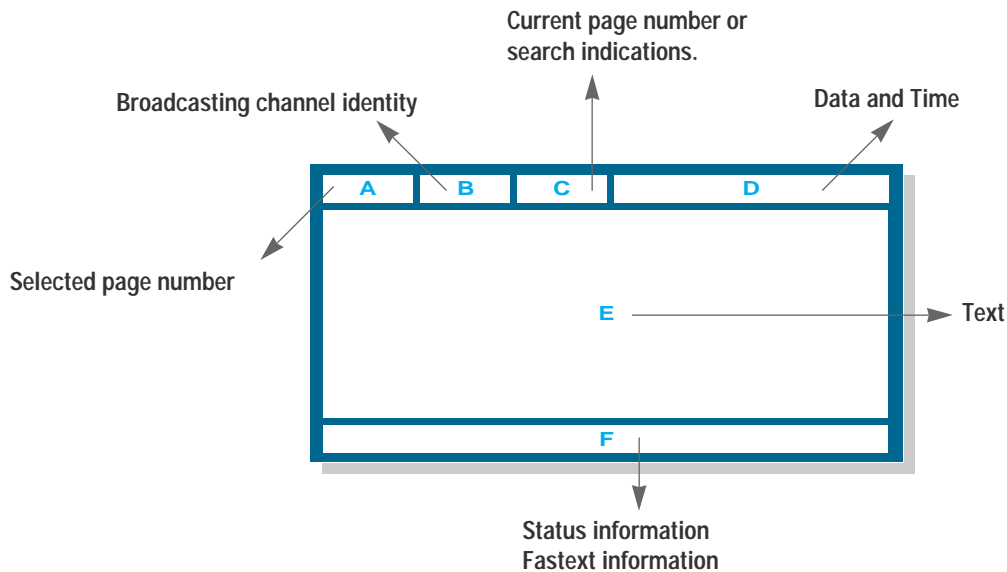
Most TV channels provide written information services via teletext. Information provided includes with the next entry it is same :

- TV programme times
- News bulletins and weather forecasts
- Sports results
- Travel information

Teletext information is often divided between several pages displayed in sequence, which can be accessed by :

- Entering the number
- Selecting a title in a list
- Selecting a coloured heading (FASTEXT SYSTEM)
- Travel information

Teletext OSD(On-Screen-Display) Picture







Displaying the Teletext Information


You can display Teletext information at any time on your TV.

For Teletext information to be display correctly channel reception to be stable otherwise

- Information maybe missing or some pages may not be displayed.

- 1**  Press TTX ON/OFF button to activate the TTX mode.
(The contents page is displayed.)





- 2**  If you wish to display the actual broadcast
at the same time as the teletext page,
Press TTX/MIX button Toggle.

- 3**  Press TTX ON/OFF button again to
exit from the teletext display.



Selecting Display Options

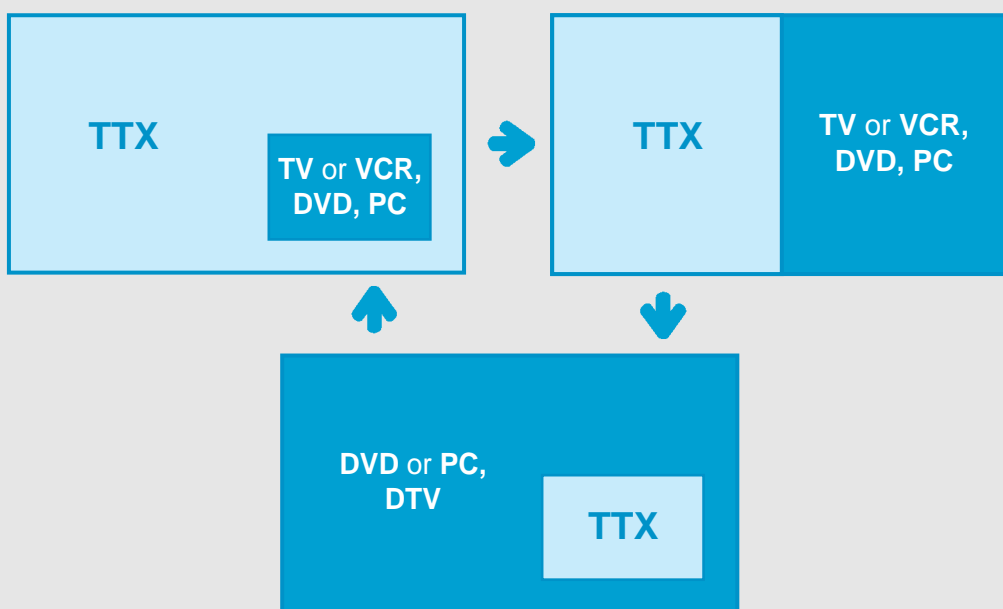
When you have displayed a teletext page, you can have various options to suit you requirements.

DISPLAY(ACTION)	BUTTON
<ul style="list-style-type: none">• Hidden Text (Answers to Quiz Games, for Example)• The Normal Screen	 REVEAL REVEAL AGAIN
<ul style="list-style-type: none">• A Second Page• Normal screen	 SUB PAGE SUB PAGE AGAIN
<ul style="list-style-type: none">• Double-Size Letters in the :<ul style="list-style-type: none">- Upper half of the screen- Lower half of the screen• Normal Screen :	 SIZE - ONCE - TWICE - THREE TIMES
<p>Stops the automatic page change which will occur if teletext page consists of 2 or more sub pages. The stop symbol is displayed at the top left-hand corner of the screen.</p> <p>To Continue ...</p>	 HOLD HOLD AGAIN

DISPLAY(ACTION)	BUTTON
<ul style="list-style-type: none"> • FLOF —————> INDEX (Full Level One Facilities) • TOP —————> INFO. (Table of Page) 	INDEX
<ul style="list-style-type: none"> • To Store Page 	STORE
<ul style="list-style-type: none"> • Return to List or FLOF mode 	LIST/FLOF



You can view TTX information while watching other program(s).



You can activate PIP while viewing TTX information.

➔ For details on PIP feature, please refer to the Picture Setup section on page 40~43.



Function Setup



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Using the Auto Size	80
Display Mode According to Signal Source for Auto Size settings	81



How to Select the Aspect Ratio

Users can adjust Aspect Ratio as users want.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to "FUNCTION" icon.

2



Press Left and Right buttons to select "FUNCTION".



3



Press Up and Down buttons to move to "ASPECT RATIO".

4



Press Left and Right buttons to select "ASPECT RATIO".

5



Press Left and Right buttons, then the menu changes in order below.
⇒ Wide ⇒ Normal ⇒ Panorama ⇒ Zoom1 ⇒ Zoom2 ⇒ Zoom3 ⇒ Auto Wide ⇒



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

ASPECT

How To Directly Select Aspect Ratio : Press  button.

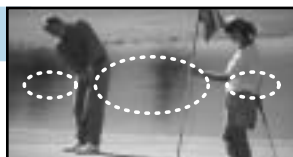
OSD menu displays the current aspect ratio.

If you press the ASPECT button second time, aspect ratio will be changed according to Input mode as follows :

- Under DTV, DVD inputs : Users can select Wide ⇒ Zoom1 ⇒ Zoom2 ⇒ Zoom3 ⇒ Auto Wide in order.
- Under PC, DVI inputs : Users can select Wide ⇒ Normal ⇒ Auto Wide in order.
- Under other inputs : Users can select Wide ⇒ Normal ⇒ Panorama ⇒ Zoom1 ⇒ Zoom2 ⇒ Zoom3 ⇒ Auto Wide in order.

WIDE / AUTO WIDE

General broadcast picture is adjusted to 16:9.



NORMAL

General picture size.



PANORAMA

Picture size for panorama video.



ZOOM1

Zoom in 16:9 in vertical direction.



ZOOM2

The picture enlarged to 16:9 format. This mode is recommended in letter box format.



ZOOM3

This Mode is used to display 4:3. The picture using the full surface of the screen leaving the Sub-title visible.





Displaying Information

You can view the channel information and setting status by pressing the “INFO” button on the remote control.



In case of applying TV input
Press INFO button.

P - 01
12 : 30 AM

PICTURE MODE : STANDARD
SOUND MODE : USER
S.MODE : MONO



In case of applying VIDEO input
Press INFO button.

VIDEO - PAL
12 : 30 AM

PICTURE MODE : STANDARD
SOUND MODE : USER



In case of applying PC input
Press INFO button.

PC - 1024x768 70Hz
12 : 30 AM



If the EXIT button is pressed, the menu disappears.

How to Set Key-Lock

This is to lock the control buttons on the front bottom of PDP.

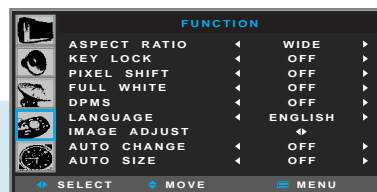


Press Menu button.
Menu items appear on the screen.

1



Press Up and Down buttons to move to
"FUNCTION" icon.



2



Press Left and Right buttons to select
"FUNCTION".



3



Press Up and Down buttons to move to
"KEY LOCK".

4



Press Left and Right buttons to
ON/OFF.



Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.

TIP

When the AC power supply is cut off, key-lock function is automatically off.

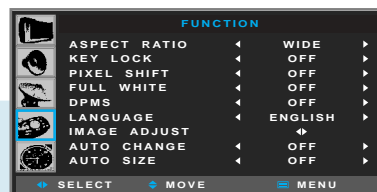


Using the Pixel Shift / Full White / Wiper Function

This feature is designed to reduce image sticking effects during displaying a static picture.
(Brightness degradation is caused by the scale effects of a panel, which is characteristic of a PDP.)



Press Menu button.
Menu items appear on the screen.



1

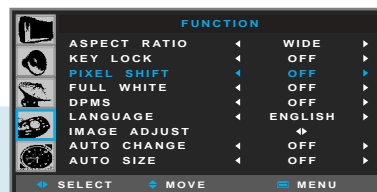


Press Up and Down buttons to move to
"FUNCTION" icon.

2



Press Left and Right buttons to select
"FUNCTION".



3



Press Up and Down buttons to move to
"PIXEL SHIFT" or "FULL WHITE".

4



Press Left and Right buttons to
"ON/OFF".

4



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

While FULL WHITE is activated, if you wish to switch the mode to Off or wish to use other function, press any of buttons on the remote control unit or any of control keys on the PDP unit. Then the menu screen will appear again. Press the left or right button to deactivate the current mode.

It may take from several minutes up to several hours to remove the image sticking. If a fixed pattern is displayed for a long time, you can prevent the latent image by switching FULL WHITE to On for 2 or 3 minutes on a hourly basis. The image sticking effect is influenced by the brightness of a fixed pattern and its display time. It is recommended that you reduce the level of the brightness by using picture controls (See page 36) when a fixed pattern is displayed for a long time.

WIPER

How To Directly Select Wiper : Press  button.

The image sticking (brightness degradation) is eliminated as white bars are moving in the right direction.

How to Freeze Picture

The user can temporarily stop the playing picture.

STILL



Press Still button.

Playing picture is stopped.

- Under multi-screen mode(PIP, TWIN), the main picture stops.

To deselect Still function.

Press Still button once more.





How to Set DPMS

When in PC mode, you can activate Power Saving mode.



Press Menu button.
Menu items appear on the screen.

1



Press Up and Down buttons to move to
"FUNCTION" icon.



2



Press Left and Right buttons to select
"FUNCTION".



3



Press Up and Down buttons to move to
"DPMS".

4



Press Left and Right buttons to
"ON/OFF".



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



DPMS feature is available for PC mode only.

Choosing the Your Languages

When you start using your TV for the first time, you must select your language preference in order to display main menus and sub menus, etc.

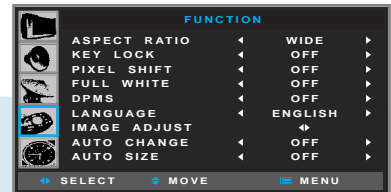


Press Menu button.
Menu items appear on the screen.

1



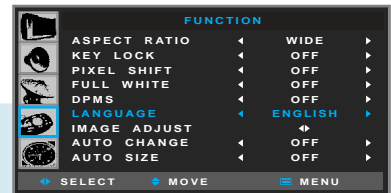
Press Up and Down buttons to move to
"FUNCTION" icon.



2



Press Left and Right buttons to select
"FUNCTION".



3



Press Up and Down buttons to move to
"LANGUAGE".

4




Press Left and Right button, then the menu changes in order below.
⇒ English ⇒ French ⇒ German ⇒ Spanish ⇒ Italian ⇒

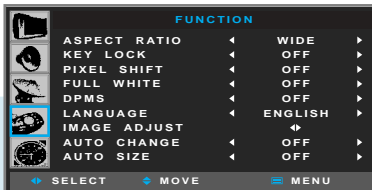




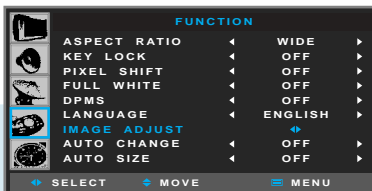


Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

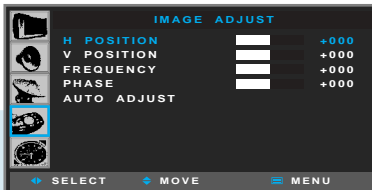





How to Set Image Adjust in PC Mode

- 1**  Press Menu button.
Menu items appear on the screen.


- 2**  Press Up and Down buttons to move to "FUNCTION" icon.
- 3**  Press Left and Right buttons to select "FUNCTION".


- 4**  Press Up and Down buttons to move to "IMAGE ADJUST".
- 5**  Press Left and Right buttons to select "IMAGE ADJUST".
Image adjust menu appears.


- 6**  Press Up and Down buttons to choose Item.
- 7**  Press Left and Right buttons to adjust.
- EXIT**  Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

HORIZONTAL POSITION : To adjust the horizontal position of the picture.
 VERTICAL POSITION : To adjust the vertical position of the picture.
 FREQUENCY : To adjust to reduce the noise on the picture.
 PHASE : To adjust to eliminate the shake of the picture.
 Auto ADJUST : Horizontal/vertical positions are automatically adjusted.

How To Directly Select Auto Track : Press  button.

Automatically adjust Horizontal/Vertical position of the picture.

TIP

- This function is provided in only PC mode.
- When executing PC AUTO, optimum picture can be obtained if the setting is made under the full pattern.
- You can store up to six modes by activating PC AUTO function.
If you exceed six modes, the first stored mode information will be removed and a newly stored mode will be stored.

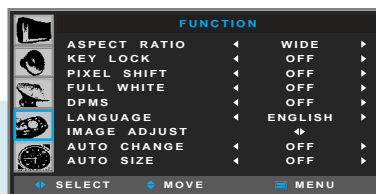


Using the Auto Change

When watching your TV (pay channels) in Full Scart, CH information OSD is displayed on the screen in the same way as TV Mode.



Press Menu button.
Menu items appear on the screen.



1

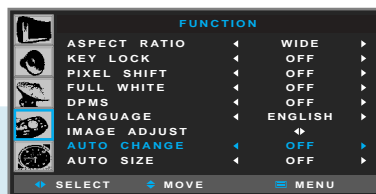


Press Up and Down buttons to move to
"FUNCTION" icon.

2



Press Left and Right buttons to select
"FUNCTION".



3



Press Up and Down buttons to move to
"AUTO CHANGE".

4



Press Left and Right buttons to
"ON/OFF".



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



- If you put AUTO CHANGE into ON while watching TV, the current mode is automatically switched to Full Scart to display signals that come into Full Scart on the screen. However, there is no input signal to Full Scart, no switching to Full Scart occurs.
- In other AV Mode than TV Mode, putting AUTO CHANGE into ON won't switch the current mode to Full Scart.
- When AUTO CHANGE is OFF, F SCART-CHANNEL NO is displayed on CH information OSD on the screen.

Using the Auto Size

This function is to automatically change the size of a picture by receiving WSS(Wide-Screen-Signal).

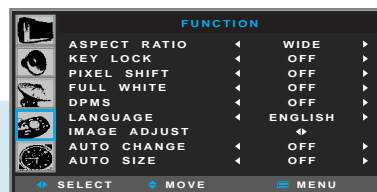


Press Menu button.
Menu items appear on the screen.

1



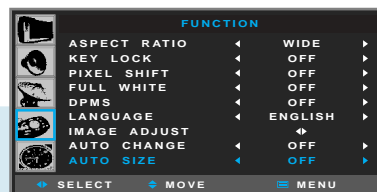
Press Up and Down buttons to move to
"FUNCTION" icon.



2



Press Left and Right buttons to select
"FUNCTION".



3



Press Up and Down buttons to move to
"AUTO SIZE".

4



Press Left and Right buttons to
"ON/OFF".



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

TIP

- When Auto Size is Off, the picture is displayed in Aspect Ratio the user has selected, regardless of the type of signal (4:3 or 16:9) which is being received.
- Auto Size is not supported in PC, DVI, DTV and DVD input modes.



Display Mode According to Signal Source for Auto Size settings

Aspect Ratio designated by user	Incoming Broadcast Format	Supported Aspect Ratio Mode
Auto Wide	4:3	Panorama
	Letter Box	Zoom
	16:9	Wide
Panorama	4:3	Panorama
	Letter Box	Zoom
	16:9	Wide
4:3	4:3	Normal
	Letter Box	Zoom
	16:9	Wide
Wide or Zoom	4:3	Normal
	16:9	Wide



When Auto Size is Off, Auto Wide is designed to display the screen in Wide Mode in the Aspect Ratio Mode Table above. When Auto Size is On, nearly Full Screen regardless of input source being received.

Clock Setup



How to Set Clock	83
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How to Set Clock

You can set the current time so that it may be displayed by pressing the "INFO" button. You must also set a clock if you wish to use the automatic on or off timers.

Ex) To set to 6:30 PM,



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to "TIME" icon.

2



Press Left and Right buttons to select "TIME".



3



Press Up and Down buttons to move to "CLOCK".

4



Press Left and Right buttons to select "CLOCK".
Press the button a second time to move to "HOUR".



5



Press Up and Down buttons to set to "6".

6



Press Left and Right buttons to move to "MINUTE" unit.



7



Press Up and Down buttons to set to "30".

8



Press Left and Right buttons to move to "AM/PM".



9



Press Up and Down buttons to set to "PM".



When the power supply(AC main power) is cut off, the clock is reset to the value before the Time set.

Press the Right button and then go to step 10 if you need to set on time.

How to Set On Time

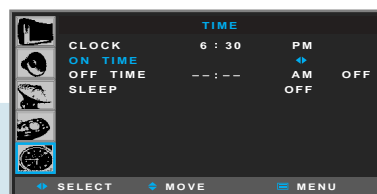
This function allows you to automatically turn on your PDP at the preset time.

Ex) To set to 7:20 AM,

10



Press Up and Down buttons to move to "ON TIME".



11



Press Left and Right buttons to select "ON TIME".
On Time menu appears.

12



Press Left and Right buttons to select "TIME" to move to "HOUR".



13



Press Up and Down buttons to set to "7".

14



Press Left and Right buttons to move to "MINUTE" unit.



15

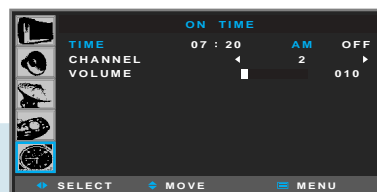


Press Up and Down buttons to set to "20".

16



Press Left and Right buttons to move to "AM/PM".



17



Press Up and Down buttons to set to "AM".

Continued on next page

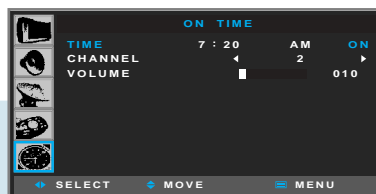


..... Continued from previous page. (Set the volume level and channel at the time when your PDP turns on.)

18



Press Left and Right button to move to "ON/OFF".

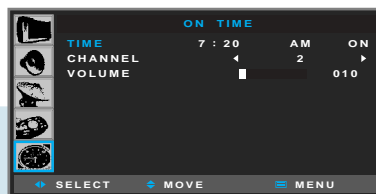


19



Press Up and Down buttons to set to "ON".

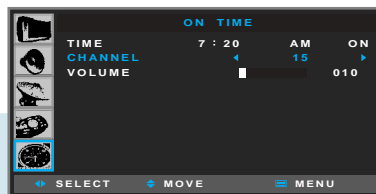
Press the Right button and then go to step 20 if you need to set the Channel/Volume.



20



Press Up and Down buttons to move to "CHANNEL".



21

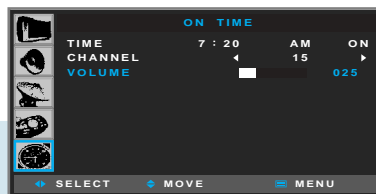


Press Left and Right buttons to set to "Channel".

22



Press Up and Down buttons to move to "VOLUME".



23



Press Left and Right buttons to adjust.



Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.



Regardless of which Input Mode you set On Time in, your PDP will turn on in TV Mode only.

How to Set Off Time

This function allows you to automatically turn off your PDP at the preset time.

Ex) To set to 11:30 PM,



Press Menu button.
Menu items appear on the screen.



1

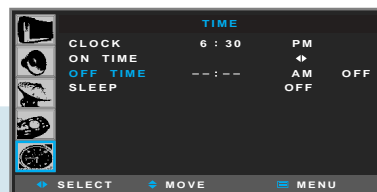


Press Up and Down buttons to move to "TIME" icon.

2



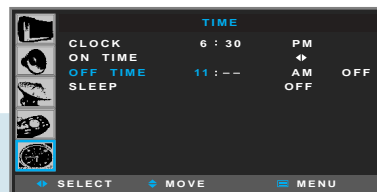
Press Left and Right buttons to select "TIME".



3



Press Up and Down buttons to move to "OFF TIME".



4

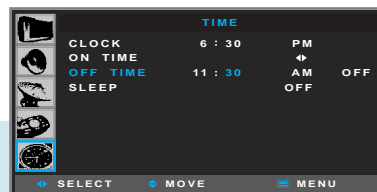


Press Left and Right buttons to select "OFF TIME" to move to "HOUR" unit.

5



Press Up and Down buttons to set to "11".



6



Press Left and Right buttons to move to "MINUTE" unit.

7



Press Up and Down buttons to set to "30".



8



Press Left and Right buttons to move to "AM/PM".

9



Press Up and Down buttons to set to "PM".

Continued on next page



..... Continued from previous page.

10



Press Left and Right button to move to "ON/OFF".

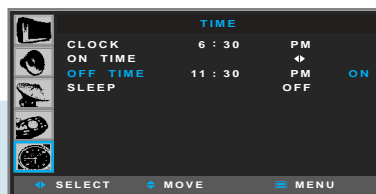
11



Press Up and Down buttons to set to "ON".



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



How to Set Sleep Time

This function allows you to automatically turn off your PDP after a designated amount of time.



Press Menu button.
Menu items appear on the screen.



1

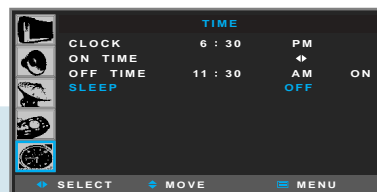


Press Up and Down buttons to move to
"TIME" icon.

2



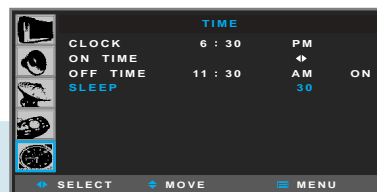
Press Left and Right buttons to select
"TIME".



3



Press Up and Down buttons to move to
"SLEEP".




4



Press Left and Right buttons, then the menu
changes in order below. (Unit : Minute)
⇒ OFF ⇒ 30 ⇒ 60 ⇒ 90 ⇒ 120 ⇒ 240 ⇒



Press MENU button after the setting is done,
and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

How To Directly Start Sleep : Press  button.

Press sleep button, then the setting changes in order below. (Unit : Minute)

⇒ OFF ⇒ 30 ⇒ 60 ⇒ 90 ⇒ 120 ⇒ 240 ⇒

TIP

One minute before the preset Sleep Time, "Power off in a minute" message will appear.



Appendix



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Glossary

Component video	Component video is sent through three cables: two color shade (chrominance) signals and one brightness (luminance) signal. Component video achieves greater color accuracy than composite video or S VIDEO by splitting chrominance into two separate portions.
Composite video	Composite video is sent through a single cable. Composite video combines the color shade (chrominance) and brightness (luminance) information into one video signal.
S-VIDEO	S VIDEO requires a single cable, which carries the brightness (luminance) and color (chrominance) signals of the picture separately. S VIDEO provides better resolution than composite video, which carries the signals together.
Full Scart	SCART connectors used with many European video equipments is designed to carry composite video and RGB video signals. If the equipment which outputs picture outputs RGB-signal, it will output RGB signal from the RGB pins and a complete composite video signal at the same time.
Half Scart	Basically is the same as Full Scart in function but does not support RGB Video signals.
480i	Provides 480 lines of resolution. Displays images using interlaced scanning, which first transmits all the odd lines on the TV screen and then the even lines.
480p	Provides 480 lines of resolution. Displays images using progressive scanning, which transmits each line from top to bottom.
720p	Provides 720 lines of resolution. Displays images using progressive scanning, which transmits each line from top to bottom.
1080i	Provides 1080 lines of resolution. Displays images using interlaced scanning, which first transmits all the odd lines on the TV screen and then the even lines. 1080i is one of the formats used by HDTV (High Definition TV).
Digital television (DTV)	A new technology for transmitting and receiving broadcast television signals. DTV provides higher resolution and improved sound quality over analog television.
HDTV(High Definition TV)	HDTV is a new kind of digital TV, creating a high quality picture, high definition. The HDTV provides a theater-like screen with an aspect ratio of 16:9. Supports 480p or higher.
SDTV(Standard Definition TV)	SDTV is a new kind of standard definition digital TV, having a range of lower resolution than the HDTV. Supports 480i.
Satellite Broadcasting	Provides crisp picture and clear audio quality throughout the country via a satellite.
Cable Broadcast Receiver (Converter)	A device that receives cable broadcasting. Connecting it to your TV set allows you to watch a various channels.

VHF/UHF	VHF (Very High Frequency) is the part of the frequency spectrum from 30 to 300 megahertz. UHF (Ultra High Frequency) is the part of the frequency spectrum from 300 to 3,000 megahertz.
DVD	DVD (digital versatile disc) is an optical disc that can store a huge volume of multimedia such as video, game, and audio application, etc.
DVI	DVI (Digital Visual Interface) is a specification for digital signals. This interface using TMDS transmission reduces the loss of signal, allowing to enjoy a clear and crisp image. There are DVI-D connection, designed for digital signals, and DVI-I connection, designed for both analog and digital signals.
Coaxial Cable	Coaxial cable is the kind of rounded copper cable, which is generally used for TV antenna.
LNA (Low-Noise-Amplifier)	Satellite applied technology. It is capable of amplifying weak signals so that any area experiencing a signal interruption may enjoy a clearer picture quality.
Aspect ratio	Refers to the ratio between the width and height of the screen. This TV has a 16:9 (widescreen) aspect ratio, as opposed to a 4:3 aspect ratio.
PIP (Simultaneous Screen)	PIP allows you to view two images at the same time in a single screen.
SWAP	PIP function provides a main picture (larger image) and sub-picture (smaller image). The SWAP is designed to swap the sub-picture for the main picture. For example, while you are watching a main picture on TV and watching a sub-picture on VCR, you can instantly switch the two pictures by using the SWAP function.
Picture Mode	Picture Mode features the optimal picture quality. There are Standard-Dynamic-Movie-Mild-User features in order. "User Control" allows you to adjust Contrast, Brightness, Sharpness, Color and Tint.
Sound Mode	Sound Mode features the optimal sound quality. There are Standard-Music-Movie-News-User features in order. "User Control" allows you to adjust high frequency sound, middle frequency sound and low frequency sound.
Channel Tuning	The feature allows you to enjoy optimal broadcasting. This product provides automatic tuning feature for the best broadcasting status. You can tune the channels manually.
SRS WOW	A well-recognized 3D sound technology developed by US SRS Labs, Inc. This technology delivers the ultimate audio experience only with two speakers as if through multi-channel speakers.
Subwoofer Output	Designed to improve ultra low frequency with about 150Hz. Installation of a sub woofer with a built-in amplifier is necessary.



Troubleshooting

Installation Problems

Symptom	Possible solution
How can I install an antenna?	Refer to pages 23~24.
TV screen is not clear after installing an indoors antenna.	Indoors antenna may experience poor reception due to surrounding buildings. Please install an outdoors antenna or wireless antenna.
How can I view cable broadcasting?	Please install a cable broadcasting receiver (Converter).

Picture Problems

Symptom	Possible solution
Neither picture nor sound comes up.	Check whether power is on. Check whether the power is cut or whether power cord is properly connected. Try to plug another product's power cord to the outlet the PDP is plugged into.
Picture turns on slowly after power is on.	This symptom is not a malfunction. This delay is designed to prevent the distorted and noisy picture when power is on. However, if the picture does not appear more than 5 minutes after power is on, call a service center.
Vertical and horizontal lines and web patterns briefly appear on the picture and shake.	This symptom may be caused by interference from other electric appliances. Please avoid using a cordless phone, hairdryer, and electric drill, etc.
Input Source information only appears on black screen.	Check whether your TV is properly connected to external devices.
Poor reception on some channels.	Check whether you selected proper channels. Try re-orienting your antenna. Ensure LNA is activated.
Black and white on some channels.	Check other channels for black and white screen. Adjust colour.
TV won't turn on.	Ensure the power cord is plugged.
Screen is too bright or too dark.	Adjust brightness.

Auto On does not work.

Ensure to use the remote control or power button on the product to turn off your TV. If you unplug the power cord, the stand-by consumption power becomes 0 (zero), which causes the programmed time to be erased.

After setting the time, I turned TV off and turn it on. The programmed information has been erased.

Ensure to use the remote control or power button on the product to turn off your TV. If you unplug the power cord, the stand-by consumption power becomes 0 (zero), which causes the programmed time to be erased.

Sound Problems

Symptom

Possible solution

Too much noise occurs.

Check whether the audio setting is in the Stereo mode. In the Stereo mode, the sound may be distorted in the area where experiences poor reception or is located far away from a TV broadcasting station.

No sound while viewing a cable channel

Make sure an audio or audio/video component is securely inserted into the appropriate jacks. Check other channels for sound. Check the volume settings on the cable broadcasting receiver.

Picture is OK but sound does not come out.

Try to press volume up/volume down buttons of your remote control.

One of the speakers does not produce sound.

Select sound balance and make proper adjustment. (Page 48)
Check the speaker connection cables.

General

Symptom

Possible solution

Remote control won't work.

Check whether there is a blocking object between the remote control and PDP. Make sure your PDP is Power On. (In case of normal, LED on the front panel is in Red.) Check whether batteries are inserted with proper polarities(+, -). When the batteries are worn out, replace with new ones.

Where does the S-Video cable plug in for audio output?

Connect the two Audio jacks from the S-Video cable to the left and right ports on the Composite.

Strange noises are heard.

Ticking noise during or after watching is caused by the change of ambient environment such as humidity and temperature, which is characterized by plastic products. Strange ticking noise occurs because a signal is suddenly transmitted to the PDP panel. So, this is not a malfunction.

I tried to use the TV screen as a PC monitor but it doesn't work.

Adjust the resolution referring to the standard signal mode table. Check the specification of your video card installed in your PC. If your video card does not work in supported hardware. Try upgrading the video card's driver.

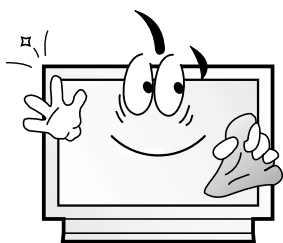


Care and Cleaning

Cabinet Cleaning

Wipe a soft dry cloth.

Do not use inflammables like Benzene or Thinner, or wet clothes.
Do not scratch the panel of PDP with a fingernail or pointed object.



Screen Cleaning

Clean the screen with a soft cloth moistened in mild glass detergent and dry with a soft cloth.

Never use any solvent on the screen such as Acetone, Benzene, or Thinner, etc.

Cleaning Inside

When the inside needs to be cleaned, contact a service center or distribution agent where the item is purchased.

It is recommended cleaning is complete before the rainy season.

Product Specifications

Display (PDP TV)

MODEL	HQP421SR	HQP421HR	HQP501HR
Pixel	852(H) x 480(V)	1024(H) x 768(V)	1366(H) x 768(V)
Width	1030 mm		1208 mm
Height (Excluding stand)	631 mm		724 mm
Height (Including stand)	717 mm		809.5 mm
Depth	79 mm		79 mm
Weight (With Package)	32 kg		54 kg
Weight (Net Product)	26 kg		43 kg
Power	100 - 240V AC 50/60Hz		
Colors	16,770,000 colors(256 colors for each R, G, B)		
Use Temperature	0°~40°C		
Use Humidity	Below 80%		
TV	2-Tuner Built In		

Speaker (Optional)

MODEL	PD421S	P501S
Dimensions(WxDxH)	120 x 79 x 631 mm	120 x 79 x 724 mm
Weight	2 kg x 2	1.5 kg x 2
Type	2 way 6 speaker system	
Cabinet	Base Reflex Type	
Impedance	8 Ω	
Allowable Input	Rated 8W (RMS)	
	Max. 10W(Music Peak Power)	
Frequency Response	120Hz ~ 20,000Hz (-10dB)	
Output Sound Pressure	87dB/W/m	



Component Video Signal Format

If PDP cannot reproduce proper video image, it's necessary to select a specific component video signal format among the below.

- DVD : 480i / 480p / 576i / 576p / 720p / 1080i
- DTV (Digital Broadcast) : 480p / 576p / 720p / 1080i
- All signals are available for 50Hz/60Hz.

PDP couldn't display proper video image in case of different output signal from the specification that PDP supports. (The below specification table) Then, please adjust the output signal setting from the appliances.

Or when you would like to purchase PDP & the appliances like SETTOP BOX or DVD, please check the compatibility between the input signal of PDP and the output signal of the appliances.

1. AV input Specification

Signal Name	Horizontal Frequency (KHz)	Vertical Frequency (KHz)
PAL	15.625	50
PAL60	15.734	59.950
SECAM	15.625	50

2. Component Input Specification

Signal Name		Horizontal Frequency (KHz)	Vertical Frequency (KHz)	Remarks
480 60i	720 x 483	15.75	60	DVD input
		15.734	59.94	
480 60i	720 x 486	15.75	60	
		15.734	59.94	
480 60i	640 x 480	15.75	60	
		15.734	59.94	
576 50i	720 x 576	31.25	50	
625 50i	720 x 576	15.63	25	
480 60p	720 x 483	31.5	60	DVD input DTV Input
		31.469	59.94	
480 60p	720 x 486	31.5	60	
		31.469	59.94	
480 60p	640 x 480	31.5	60	
		31.469	59.94	
576 50p	720 x 576	31.25	50	
		31.47	50	
625 50p	720 x 576	31.25	50	
720 50p	1280 x 720	37.5	50	
720 60p	1280 x 720	45	60	
		44.955	59.94	
1080 60i	1920 x 1080	33.75	60	
		33.716	59.94	
1080 50i	1920 x 1080	28.125	25	
		31.25	25	

MEMO



MEMO